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ABSTRACT

This study presents indexes estimating the cost of living, value of amenities, and equilibrium wages in 579 cities and averages for the 50 states and the District of Columbia. An additional index of the cost of providing government public services is derived from these data. The indexes are intended to be useful tools for employees, unions, citizens, and government officers for incorporating geographical price differences into analyzing and establishing salaries and county, city, and state budgets. The narrative portion of the study discusses the indexes and their use and describes how the indexes were developed. Text tables summarize data. Appendixes include formulas for the derivation of the indexes. At the end of the report are found these tables: cost of living, value of amenities, equilibrium wages, and cost of public services by city and state, 1985-87; consumption, state income tax rate, cost of living, value of amenities, and equilibrium wages, by city, 1985-86; cost of consumption and components by city, 1986; property ownership costs by city, 1985; and home heating and cooling costs by city, 1984. (YLB)

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COST OF LIVING, EQUILIBRIUM WAGES, AND COST OF PUBLIC SERVICES

CITY AND STATE INDEXES

D. Kent Halstead

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I. INTRODUCTION

How much more does it cost to live in Boston than Atlanta? This question, and those asked about other locations, arise because prices differ from one community to another and employees feel that salaries should be adjusted so that everyone on the same job, no matter where he lives, earns the same purchasing power. Older citizens also are interested in living costs in planning their retirement. Concern arises when comparisons are sought and the information is not available.

Workers also recognize that differences in the quality of life are involved, and some additional adjustment in salary should be made to account for advantages in climate, work and recreation opportunities, and other living conditions. Again no measures of amenities are available. Yet together, cost of living and quality of life can identify significant geographical wage differences deemed fair by both management and labor.

The question of prices and location equity also arises in government expenditures. Does a hundred dollars spent for public schools in Houston buy as much as in Dallas? Since the costs involved vary from city to city, equal public services cannot be provided unless expenditures are proportionally adjusted.

The public is not as familiar with the problem of geographical equity in wages and government expenditures as the differences involved warrant. This is due in part to our being accustomed to exclusively measuring value or worth in nominal (face-value) dollars. However, consistent inflation has taught most consumers to recognize the eroding value of their real income over time as measured by the Consumer Price Index (CPI). More public attention would be given to geographical differences in the real value of wages if this information were also available.

This study seeks to advance our thinking on this subject by presenting indexes estimating the cost of living, value of

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Author's Note: In large measure the success of this study is due to the consul and statistical assistance provided by Nabeel Absalam and Martin E. Orland of the Office of Economic Research and Improvement, U.S. Department of Education. Stephen M. Barro, SMB Economic Research, Inc., read and provided valuable comments on an initial approach attempted. While these individuals should receive credit, deficiencies in the study remain the sole responsibility of the author.

Special thanks is due C. A. Kasdorf, Co-Chairman, ACCRA Cost Living Index, for permission to publish the ACCRA price data, and P. E. Pereira, Chief Editor, Dodge Cost System, for permission to publish the Dodge Unit Cost data.

amenities, and equilibrium wages in 579 cities and averages for the 50 states and the District of Columbia. Derived from these data is an additional index of the cost of providing government public services. Together the indexes provide tools useful to employees, unions, citizens, and government officers for incorporating geographical price differences into analyzing and establishing salaries and county, city, and state budgets.

The Indexes and Their Use

The index estimates[1] for cost of living, value of amenities, equilibrium wages, and cost of public services are presented for cities and urban areas in Table 1 with index component details in Tables 2-4. State indexes are presented in Table 1 and summarized in text Table A. All indexes are based on a city and state population weighted U.S. average equal to 100. The U.S. index of 100 thus represents the actual national average value or dollar amount involved.

The indexes are reported for neighborhoods within the city limits but outside the city core and in adjacent suburbs, for metropolitan statistical areas (MSAs) and other cities and urban areas. The time frame for the data inputs is 1985-87 (HUD, 1985; ACCRA, 1986; Dodge Construction, 1987). The indexes measure geographical differences at a point in time, and are fairly stable compared to a time series such as the Consumer Price Index (CPI). Consequently, at most, yearly updating is required.

Users are cautioned that the indexes developed in this study are estimates based on the best available but limited data, and dependent on certain assumptions. Care must be exercised in index use to convey this understanding. The indexes are briefly described below and treated in detail in subsequent chapters.

Cost of Living Index Geographical price differences in the goods and services purchased by families are primarily due to differences in production and distribution costs and in local supply and demand. The price differences are reported in relative terms as a "cost of living index." The Cost of Living Index (CLI) presented here reports the 1985-87 relative budget in 579 cities and metropolitan areas and state averages required to purchased a fixed market basket of goods and services typical of a 3-person (2 wage earners) family living in their own home at a

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[1] The city indexes are estimated on one of four accuracy levels: #1--index compilation based on complete consumption price data (152 cities); #2--one proxy substitution with a standard deviation of 1.85 index points (61 cities); #3 and #4--regression estimates with standard deviations of 3.9 (90 cities) and 5.4 index points (276 cities) respectively.

Table A. State Indexes of Cost of Living, Equilibrium Wages, and Cost of Public Services, 1985-87.

State	Cost of Living Index	Equilibrium Wages	Cost of Public Services
Alabama	90	95	94
Alaska	128	116	117
Arizona	96	97	97
Arkansas	90	93	93
California	108	101	102
Colorado	98	98	97
Connecticut	103	103	105
Delaware	97	99	99
Dist of Columbia	105	102	102
Florida	93	94	95
Georgia	93	97	98
Hawaii	121	107	110
Idaho	98	100	98
Illinois	101	102	102
Indiana	95	99	98
Iowa	95	97	97
Kansas	92	95	95
Kentucky	92	95	95
Louisiana	91	92	93
Maine	94	97	96
Maryland	100	101	100
Massachusetts	107	109	110
Michigan	106	110	109
Minnesota	101	103	103
Mississippi	88	92	92
Misouri	93	96	96
Montana	96	97	97
Nebraska	91	93	93
Nevada	100	98	98
New Hampshire	97	99	101
New Jersey	106	106	108
New Mexico	93	94	93
New York	114	113	115
North Carolina	90	94	94
North Dakota	93	94	95
Ohio	97	100	100
Oklahoma	93	95	96
Oregon	106	106	104
Pennsylvania	104	106	107
Rhode Island	103	105	106
South Carolina	91	95	95
South Dakota	91	94	95
Tennessee	89	93	93
Texas	94	96	96
Utah	96	97	96
Vermont	96	99	100
Virginia	93	96	95
Washington	99	99	98
West Virginia	95	98	98
Wisconsin	101	102	101
Wyoming	96	96	96

1987 "middle income" ($40,000) level. Values range from a low of 81 in Batesville, Arkansas, to a high of 128 in Anchorage, Alaska, and 124 in New York City metropolitan area. The state with the highest average cost of living is Alaska, 128. Mississippi has the lowest average, 88.

Value of Amenities Geographical price differences are also due to the relative attractiveness of areas. Prices are usually bid up in areas with job opportunities and high wages, a good climate, quality schools, and recreational and cultural advantages. Prices reported by the Cost of Living Index reflect these differences in quality of live. However, there are obviously direct benefits to be gained by living in certain cities and urban areas--benefits for which the consumer is generally willing to pay if given a choice of residence. It is important that such benefits be measured so that their value can be subtracted from real wages to provide equal worker satisfaction in each instance.

The relative value of living in different locations is reflected in the price difference consumers are willing to pay to reside in each. The best evidence of this willingness to pay for location is residential site (lot) prices. For purposes of this study, the value of location-specific (non-transportable) amenities is estimated by the unit prices of residential sites ($/square foot) for single family homes reported by the Department of Housing and Urban Development.

These values are reported as an Amenity Index (AI) in Tables 1 and 2 based on a U.S. population weighted average equal to 100. An index of 60 means that the value of amenities (as measured by residential property site prices) is 60 percent of the U.S. average; an index of 120 means that amenities are valued 20 percent greater than the U.S. average. The range in AI values is from the low 20's for cities such as Anniston, Alabama and Columbus, Georgia, to highs of 361 for San Jose, California and 334 for Honolulu.

Equilibrium Wage Index Consumers who freely choose their residence are obviously willing to pay for the benefits derived from their location. Accordingly, wages need not include compensation for the added costs of location-specific advantages. Workers, given free choice, are equally satisfied when they receive equal real wages (wages adjusted for cost of living) less the value of relative differences in amenities. The Equilibrium Wage Index (EWI) reports this equivalency by measuring cost of living less the value of non-transportable amenities. It represents the estimated geographical differences in wages or compensation required for typical families, with free choice of residence, to be equally satisfied with alternative locations. It is the EWI not the CLI which should be used in wage contract negotiations.

Employees in the same occupation and skill level at different locations may compare their salaries directly with the EWI. For example if two cities have EWIs of 118 and 92, salary differences between the two locations should be in the same proportion 118/92 or 1.28 to 1. Application of the EWI by firms to adjust wages requires computation. To illustrate, consider a firm with 100 employees in a given occupation located in three cities with equilibrium wages as follows: city A, 30 employees, EWI 85; city B, 25 employees, EWI 110; and city C, 45 employees, EWI 128. The firm's average salary for the occupation is $25,000. The formula to be used states that the firm's total salary for all employees equals the sum of the salary sub-totals for each city, with city salaries ratios of 85:110:128.

$$30\ (.85\ Y) + 25\ (1.10\ Y) + 45\ (1.28\ Y) = 100 \times \$25{,}000$$

where Y = salary for EWI = 100 $\qquad Y = \$22{,}604$

Salary city A EWI adjusted .85 x 22,604 = $19,213
Salary city B EWI adjusted 1.10 x 22,604 = $24,864
Salary city C EWI adjusted 1.28 x 22,604 = $28,933

Cost of Public Services The Cost of Public Services Index (CPS) reports market prices and equilibrium wages that state and local governments would negotiate for a fixed basket of goods and services purchased annually for the current operation of their collective public human services. The CPS ranges from a high of 117 for Alaska to a low of 92 for Mississippi. The index may be used to adjust state and local government revenues and expenditures for the designated public human services to establish equivalent purchasing power. Federal funds to states may be similarly adjusted. Application of the CPS at the state level to state tax revenues, school expenditures per pupil, and state appropriations for higher education per student, is illustrated in Chapter IV, Table C of this study.

Index Comparison and Moderating Influences

Shown below for 16 cities are indexes for consumption (all family expenditures except taxes) for the Cost of Living Index (accuracy level #1) of this study, the "all-item" index of the American Chamber of Commerce Research Association (footnote 4), and the Bureau of Labor Statistics Intermediate Family Budget (footnote 3).

The earlier 1981 BLS indexes are least similar to the current 1986 data due to substantial differences in methodology, particularly the treatment of housing costs, and due to some shifts in city position over time. The CLI, compiled with the inclusion of ACCRA prices for food, utilities, transportation, health, and miscellaneous goods and services, naturally parallels

the ACCRA all-item index. However, substantially different price data were used for the most determinant factor in cost of living, namely, housing costs. Also contributing to differences between the two series are the weighting schemes. The ACCRA indexes are based on a city average equal to 100, whereas the CLI's are based on a city population weighted U.S. average equal to 100. This later distinction permits comparison of the ratios of the two indexes but not their absolute values.

Comparison of Indexes for Consumption Only

City	CLI 1985-87	ACCRA 3rd & 4th Qtr 1986	BLS intermediate family budget 1981
Buffalo	102	98	101
New York	130	140	109
Philadelphia	116	121	102
Cincinnati	96	100	100
Cleveland	101	99	102
Mpls, St. Paul	103	105	97
St. Louis	94	99	98
Atlanta	95	111	93
Baltimore	103	106	97
Dallas	101	109	95
Houston	101	100	98
Denver	100	104	99
Los Angeles	111	115	100
San Diego	116	120	99
Seattle	107	108	106
Anchorage	138	139	127

In reviewing the CLI's in Table 1, the values for some cities may seem lower than expected, e.g., Boston (110) and Washington, D.C. (105). There are two explanations. First, the CLI's report average prices representative of the entire metropolitan areas involved. Land prices are reported for the surrounding communities only. Thus the usually higher prices in the city core, although often the focus of living cost citations, are only a partial factor in establishing the CLI.

Secondly, consumers are well aware of the generally lower living costs in rural areas, fostering the belief that cities are comparatively expensive. Relative to adjacent rural areas this is true, but among cities, the prices are not "higher" but "typical" for urban consumers. Thus CLI's of 101 for Buffalo and Cleveland, and 98 for Dallas are common urban costs, reflecting prices numerically average but inherently higher than rural areas. The urban areas of Boston have costs 10 percent higher than for other cities, not in comparison to adjacent rural living.

The range in Cost of Living reported in this study (81-128) may be less than expected. There are a number of causes. Foremost is the use of intermediate family income housing cost data (HUD) which has a significantly smaller variance than the higher priced housing costs of middle management buyers reported by ACCRA. Secondly, the 1987 Federal and state personal income tax rate is essentially fixed for middle income families irrespective of location. Inclusion of these taxes tends to reduce the relative cost of living in higher priced areas as opposed to a substantial increase in index values if the tax were progressive.[2] Third, the CLIs of this study include items such as payments to pension funds and contributions, which are not priced or whose price is location independent. Inclusion of these items moderates the range of index values. Finally, consumers may be more knowledgeable of alternatives than in the past, which improves market action lowering price differentials.

Adjusting for the value of amenities results in equivalent wages being lower than cost of living in attractive areas, higher in unattractive locations. The reduced EWI range affects the Cost of Public Services Index which has a high of 114 for Alaska and a low of 93 for Mississippi. While this range may be slightly understated, the evidence of this study suggests that geographical cost differentials in general are less than advanced by previous studies and according to public perception.

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[2] The 1981 BLS cost of living indexes in high priced areas are substantially higher than the consumption component alone, due to a large upward adjustment to account for the progressive tax rates at that time.

II. COST OF LIVING

Because prices vary substantially across the country. consumers are generally aware of differences in the cost of living although this has not been federally documented since the Department of Labor last published the "Urban Family Budget" in 1981.[3] Currently available, and in popular use, is the 59-item price series for 224 cities published by the American Chamber of Commerce Researchers Association.[4] The ACCRA data will be discussed later.

The BLS effort is ground breaking and provides considerable insight into the nature and complexities of cost of living index construction. However, because of the small number of observations (only 40 cities), obsolescence of the component weights (1967) and price data (1981), and other deficiencies,[5]

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[3] U.S. Department of Labor, Bureau of Labor Statistics, Autumn 1981. "Urban Family Budgets and Comparative Indexes for Selected Urban Areas," News, April 16, 1982, Washington, D.C. For further details see U.S. Department of Labor, Bureau of Labor Statistics, Three Standards of Living for an Urban Family of Four Persons, Spring 1967, Bulletin No. 1570-5, Washington, D.C., and other reports in the series.

[4] See American Chamber of Commerce Researchers Association, Inter-City Cost of Living Index, Louisville Chamber of Commerce, Louisville, Kentucky. Inquiries should be directed to either C. A. Kasdorf III, Houston Chamber of Commerce, 1100 Milam Bldg., 25th Floor, Houston, TX 77002, or Edward Sturgeon, Lexington Area Chamber of Commerce, 421 North Broadway, Lexington, Kentucky 40508.

[5] BLS employed as great care and sophistication in constructing and updating the Urban Family Budget as allotted resources would permit. The resources were simply too restrictive. As a result, BLS was able to collect price data for only 25 cities, far less than required for the wide usage of a national price series. Also, the adequacy of the price sampling for individual cities has been questioned. While some supplemental pricing was introduced for bench-mark cities, primary reliance was placed on the existing Consumer Price Index field pricing structure. This system was design to establish national price changes over time, a measurement allowing a much smaller intra-city sample size than required to establish city-to-city differences at any point in time. And, despite the need for a larger sample, in some instances a smaller sample had to be used because of more severe quality restraints. For example, for rent prices the CPI requires that the sample for any given city over time consistently represent typical apartments of say, two to five rooms. The Urban Family Budget requires that the sample in each city be limited to a fixed number of rooms. Thus only a

the BLS intermediate family budget is of very limited value in developing a current index series. (Note: A regression model to predict the BLS budget was developed as an early part of this investigation and is presented in Appendix C.)

Cost of Living Defined

The argument favoring development and use of a cost of living index is based on the need for equity. Members of society have essentially equal need for and derive similar satisfaction from the basic goods and services required for typical living, and therefore such goods and services should be equally accessible. The CLI reflects the relative prices of such a market basket in different geographical locations and thus can be used to equalize accessibility by incorporation in wage levels.

The Cost of Living Index (CLI) developed in this study[6] is reported for 579 metropolitan areas and cities and state averages in Table 1 and its subcomponents in Table 2. The CLI is an estimate of the relative budget in different urban[7] locations in 1985-87 required to purchase a fixed market basket of goods and services typical of a family living in their own existing home at a "middle income" (approximately $40,000 in 1987) level. The quality of the goods and services purchased must be held constant if the index is to only report price differences.

The CLI is based on the budget of the "urban family homeowner," defined by BLS as a family living in their own existing home located in a neighborhood within the city limits

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subset of the CPI sample could be employed. No technical critique of the BLS sampling has been made, so the degree of possible error involved is not known.

[6] The sources of price data for the CLI are the American Chamber of Commerce Researchers Association and the U.S. Department of Housing and Urban Development. See later discussion pp. 13 and 19.

[7] The CLI and other indexes of this study apply to metropolitan statistical areas (MSAs) and other city and urban areas and to places of 2,500 or more residents outside urbanized areas. Almost three-fourths of the U.S. population is urban as opposed to rural. Based on county population, the 579 metropolitan areas and city CLIs of this study represent a population of approximately 182 million or roughly 80 percent of the U.S. total.

but outside the city core (42% of respondents), or in an adjacent suburb (53%). The budget is based on the consumption pattern of two employed adults earning a total of approximately $40,000 in 1987, and one child under 18 years old. The principle respondent is college (46%) or high school (54%) educated. The family owns two automobiles. Mortgage and interest payments are assumed in this study to be based on a mortgage amount equal to 80 percent of the property value, held at 8 percent interest.

The "typical goods and services" purchased by family homeowners and priced by the CLI, and their budget proportions which are used as index component weights, are shown in Table B. Extravagant and unusual items are not considered "typical" or "required" for living and are excluded. All goods and services in each location are of intended fixed quality. No account is made of individual preferences which vary purchases from this average. Also, the composition of the basket may be different for large segments of the population in different locations due to variations in life style, living requirements, and buying opportunities. Thus consumers eat different foods, enjoy different recreational opportunities, and buy different clothes, depending on their environment. It is assumed in each instance that the consumer will substitute one good or service for another to take advantage of local price opportunities or meet living requirements while maintaining the same level of overall satisfaction. If these adjustments in "living style" are small, involve small price advantages, and lead to similar levels of consumer satisfaction, their effect on cost of living is minimal. No adjustments of this type have been made.

Property Site Prices Two aspects of cost of living--property site prices and personal income taxes--require special commentary. The quality of residential property sites varies from one location to another, creating a problem with regard to the index compilation rule for fixed quality in the goods and services being priced. The ground itself, assuming it is permanently zoned residential without potential commercial use, has no distinctive value to the homeowner. It is the location of the lot in terms of proximity to initial and future job opportunities, attractiveness of topography, schools, safety, climate, etc., that establishes relative value. Thus residential site price differences exclusively reflect the value homeowner's with free choice place on living in one location compared to another. This valuation occurs within cities and between cities in the national market. Since the consumer receives benefits consistent with the site price he is willing to pay, site price differences should be excluded from cost of living if the quality of this factor (site) is to be held constant.

In an effort to minimize property quality differences, BLS and ACCRA have defined, for pricing purposes, a "standard" site. However, this restraint only prevents pricing extreme site

Table B. Average Annual Expenditures of Urban Homeowners with Incomes $30,000 to $40,000 by Item, BLS Consumer Expenditure Interview Survey, 1984.

Consumer unit consists of 2 earners, 1 child under 18, reference person's education level is 40% high school and 60% college, 2.5 vehicles. Property ownership and utilities data adjusted to reflect only homeowners with mortgage.

Item		Amount	Percent	
Income before taxes		$34,441		
Wages and salaries before taxes		29,689		
Total expenditures and taxes		34,205	100.0%	
Price location independent				
Personal insurance & pensions	$3,384			
Contributions	872			
Other lodging	398	4,654	13.6%	
Price location dependent				
TAXES		5,839	17.1%	
Federal income[1]	4,900			
State & local income	863			
Other	96			
CONSUMPTION[2]		23,712	69.3%	100.0%
1. Food	3,709			15.6%
2. Property ownership	5,366			22.6%
Mortgage interest	$3,381			
principle	756			
Property taxes	661			
Maint & insurance	568			
3. Utilities[3]	2,451			10.3%
4. Transportation[4]	5,109			21.5%
5. Health	950			4.0%
6. Other	6,127			25.8%
House furnishings & opn, lodging	1,603			
Apparel	1,398			
Entertainment	1,441			
Personal & misc[5]	1,685			

Source: "Consumer Expenditure Survey Results From 1984," News, Bureau of Labor Statistics, United States Department of Education, June 22, 1986. A special computer printout was used for certain details.

Table B footnotes

1 With an income level of $34,441, the BLS CE survey amount of $3,081 for Federal income taxes is low in comparison with IRS data. For this income level a U.S. Department of the Treasury tax liability of $4,900 for a married couple with dependents was substituted.

2 Includes reduction in home mortgage principle ($756). No other investments are included. Excludes contributions ($872), insurance and pension payments ($3,384), and other lodging ($398).

3 Utilities include heating gas and oil, $592; electricity, $985; telephone, $651; and other, $223.

4 Because of the sizeable change in gasoline prices, this component of transportation has been reduced by the 1987/1984 CPI gasoline price ratio equal to .575. The resulting expenditures are: vehicle purchase and finance, $2,787; gas and oil, $828; and maintenance and insurance, $1,057.

5 Includes personal care, reading, education, tobacco, alcoholic beverages, and other miscellaneous personal items.

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conditions; remaining price variations for the "standard" site continue to fully reflect location value preferences.

Traditional inclusion of site prices in cost of living indexes is based on the intent to report costs independent of differences in location satisfaction. The minimal satisfaction or indifference workers may experience, who are forced to locate in a given city or in proximity to work, may be similar for a wide range of locations. As the reaction approaches indifference, the need for amenity adjustment is lessened.[8] In

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[8] If employees are denied free choice and required to live in a given location, their satisfaction will likely not be proportional to the site price and they should be compensated according to the degree of variance involved. Inclusion of total site price in a cost of living compilation assumes that a forced location has no affect on the consumer's satisfaction, and the buyer should accordingly be fully compensated for site price in the absence of exercising his own location preference. Actually, when the worker is forced to locate he sustains some differences in satisfaction at each site, and the appropriate price adjustment to achieve a utility level equal to others with free choice is somewhere between the cost of living and equilibrium wages.

any event, there is value in reporting unadjusted costs in this traditional manner since they represent the total actual costs involved. This traditional approach has been used in developing the CLI of this study. (Note: Housing site prices are excluded in the equilibrium wage indexes which are designed to reflect both constant purchasing power and location satisfaction for a consumer exercising free choice. Equilibrium wages are presented in the third chapter of this study.)

Personal Income Taxes Personal income taxes also represent a problem in measuring cost of living. Taxes, it may be argued, return proportional benefits to the resident and therefore should not be included in the CLI as a fixed service purchase of equal unit pricing. However, the degree to which local and state government services are proportional to taxes paid varies greatly among jurisdictions. For example, in states with no individual income taxes, public services may largely be supported by non-resident payment of sales and severance taxes. Also citizens do not equally value or use the various public services. Finally, tax payment is not optional; most citizens view the charge as a necessary cost of location. For these reasons the benefit/price ratio for most taxes cannot be held constant, or, for that matter, systematically measured. The consequence for index construction is that taxes are viewed here as a living expense without measurable direct returns, and hence a purchase of assumed equivalent quality. Federal and state personal income taxes and residential property taxes have therefore been included in the cost of living estimates of this study.

ACCRA Price Data

Selected components of the American Chamber of Commerce Researchers Association data have been used to construct the Cost of Living Indexes of this study. These data are described here.

The ACCRA quarterly reports inter-city cost of living differences for 224 cities (see footnote 4 for citation). The 59 items forming the basis of the all-item index have been carefully chosen to reflect the different categories of consumer expenditures. Weights assigned to relative costs are based on the latest government survey data on a mid-management executive family's pattern of expenditures. All items are priced at the local level by Chamber of Commerce research personnel at a specified time and by standard specifications. A careful three stage review is made to eliminate errors or non-compliance with specifications.

A summary of the items priced is as follows:

Grocery Items (17%)
- 5 meats, fish, fowl
- 4 dairy products
- 3 produce
- 1 bakery
- 1 tobacco
- 13 miscellaneous (coffee, sugar, shortening, soft drink, peas, flakes, etc.)

Housing (22%)
- Apartment monthly rent
- Home purchase price and mortgage payment

Utilities (11%)
- Electric power
- Natural gas, oil
- Telephone

Transportation (13%)
- Bus fare
- Auto maintenance
- Gasoline

Health Care (7%)
- Hospital room
- Office visit, doctor
- Office visit, dentist
- Aspirin

Misc. Goods & Services (30%)
- Hamburger, pizza, fried chicken, haircut, toothpaste, dry cleaning, underwear, dress shirt, jeans, appliance repair, movie, newspaper, bowling, liquor, beer, wine, etc.

The ACCRA data is based on very limited city sampling. However, instructions to the field sources regarding sampling time, location, and type of retailers promote equivalent pricing conditions. Further, the items priced are often national brands which provides the desired constant quality. Overall, the ACCRA price data for food, utilities, transportation, health, and miscellaneous are acceptably accurate for purposes of the estimates of this study, and are used in step # 3 to compute costs of consumption.

The ACCRA data excludes Federal, state, and local income taxes and residential property taxes, and hence reports relative costs of consumption as opposed to total cost of living. The ACCRA all-item price series also is too restrictive as a cost of living index because of the limited applicability of its housing costs component. Pricing only newly constructed houses suitable for middle management income levels, the index includes property prices of little relevance to a majority of homeowners. The ACCRA geographical housing price differentials were found to have a substantially greater standard deviation than the substituted Department of Housing FHA data, resulting in a greater variance in the consumption cost differences than those developed in this study. This fourth concern is discussed in detail in step #2.

Derivation of the CLI

The Cost of Living Indexes (CLI) of this study are based on a model intended to:

(1) measure urban family cost of living for middle income home owners, with sufficient validity to serve as a reasonable geographical wage adjustment factor.

(2) use secondary data sources exclusively to avoid prohibitively costly data collection.

(3) provide the necessary regression data to predict cost of living for a larger universe of cities and urban areas to be aggregated as reasonable state averages.

(4) allow yearly updating of prices.

(5) allow reweighting of budget items in response to changing consumer buying patterns.

Development of the model is facilitated by organization of family living costs into three components: (1) consumption, consisting of family expenditures for food, housing, clothing, etc.; (2) Federal, state, and local personal income taxes; and (3) independent items which are not priced such as contributions, or whose price is not specific to residential location such as payments to pension plans and purchase of hotel lodging and food while vacationing and traveling away from home.

In developing the consumption cost estimates, the approach taken was first, recognition of the dominant role of housing in establishing overall consumption costs; second, development of appropriate housing cost data; and third, inclusion of this housing data together with ACCRA price information in a budget weighted formula to compute consumption costs for 213 cities.

A regression analysis was subsequently made of this data to predict costs of consumption for an additional 366 cities based on property ownership and house construction costs. The validity of this estimating procedure is determined by the high predictive capacity of housing costs which "explain" a high percent of the consumption budget. The regression analysis which established this relationship is presented in Appendix A.

The derived costs of consumption (Table 3) were next combined with tax rates and the price-independent items to establish urban Cost of Living Indexes for 579 cities (Table 2).

The research involved many variant stages, both conceptual and statistical, many conducted concurrently, all involving considerable trail and error. For systematic presentation, the work is summarized in five steps.

STEP #1: Study of the ACCRA price data and identification of housing as the key predictive component of the costs of consumption.

Fourth quarter 1986 ACCRA prices for 106 randomly selected cities were analyzed to determine the relative importance of the six major components in determining the all-item index.

The tables on the next page present the following statistical analyses of the data: (1) distribution statistics for the dependent variable (all-items) and six component independent variables, (2) a correlation matrix of variables, and (3) a regression of the dependent (all-items) variable and the housing independent variable.

The correlation matrix can be used to determine the degree to which each of the components independently contribute to the all-item cost total. Utility costs have the lowest cross-correlations indicating that this variable makes a unique contribution to total costs. Health costs are highly correlated with housing and miscellaneous costs indicating that this variable makes the least independent contribution.

Regression of the all-item cost as dependent variable with housing as the independent variable results in a R-square of .870 and a standard deviation of 3.8 index units. Thus consumption costs as measured by ACCRA data are primarily dependent on the housing costs component. The validity of any measure of consumption costs is therefore highly dependent on the definition of housing costs and its accurate measurement.

STEP # 2: Definition of housing costs and selection of data.

The importance of carefully defining housing costs immediately follows from its identification as the principle determinant of cost of living. To accurately reflect comparable urban housing costs for cost of living purposes the housing units for which price data is reported must:

(1) consist of existing house sites rather than sites of newly constructed houses. (75 to 85 percent of residential sales are for existing property.[9])

(2) reflect site locations typical of residential sales for the total urban area being reported. Site values vary greatly from one residential location to another within the same city or

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[9] Chicago Title Insurance Company, Chicago, IL, The Guarantor, bimonthly. The proportion of long-term mortgage loans for new 1-4 unit family homes in 1985 was 78% existing units, 22% new units, U.S. Dept. of Housing and Urban Development, monthly and quarterly press releases based on the Survey of Mortgage Lending Activity.

```
. summarize all food housing utility trans health misc

varname |  Obs        Mean    Std. Dev.       Min        Max
--------+--------------------------------------------------------
    all |  106   101.293396   10.5407623      88.5   163.800003
   food |  106   100.081132    5.9607304 84.4000015   114.800003
housing |  106   103.248113   30.8317134 76.8000031   332.100006
utility |  106   101.560377   19.9329864 56.0999985   192.300003
  trans |  106   100.781132   8.50888742 79.1999969        129.5
 health |  106   100.464151   16.7101744 76.1999969   160.399994
   misc |  106   100.703774   5.47205745 90.3000031   119.199997
```

```
. corr all food housing utility trans health misc
(obs=106)
         |      all     food  housing  utility    trans   health     misc
---------+---------------------------------------------------------------
     all |   1.0000
    food |   0.4955   1.0000
 housing |   0.9328   0.3015   1.0000
 utility |   0.4673   0.2147   0.3011   1.0000
   trans |   0.5236   0.2714   0.3991  -0.0434   1.0000
  health |   0.7536   0.4697   0.6344   0.1299   0.5539   1.0000
    misc |   0.7342   0.5110   0.5445   0.2305   0.5414   0.6757   1.0000
```

```
. regress all housing
(obs=106)

  Source |       SS       df       MS              Number of obs =     106
---------+------------------------------           F(  1,   104) =  696.63
   Model |  10150.8886     1  10150.8886           Prob > F      =  0.0000
Residual |  1515.41688   104  14.5713162           R-square      =  0.8701
---------+------------------------------           Adj R-square  =  0.8689
   Total |  11666.3054   105  111.107671           Root MSE      =  3.8172

------------------------------------------------------------------------------
Variable |      Coef.   Std. Err.      t    P>|t|       Mean
---------+--------------------------------------------------------------------
     all |                                                     101.2934
---------+--------------------------------------------------------------------
 housing |   .3189038   .0120825    26.394   0.000     103.2481
   _cons |   68.36718   1.301427    52.532   0.000           1.
------------------------------------------------------------------------------
```

county. Substantial block-to-block differences are not unusual. Reliance on only a few site observations can result in tremendous error. Representative sites prices can be approximated only by median values for a statistically large sample of all area sales.

(3) exhibit a price range affordable by a family at an intermediate income level. The average family income for a home buyer taking an FHA loan in 1986 was $38,000. An estimated 60 percent of all families had income less than this amount.

(4) be of consistent quality in terms of construction specifications and materials, living area, workmanship, age, lot size, etc. These factors generally cannot be adequately controlled for existing houses. The cost of constructing a new house of fixed design and material specifications essentially achieves the objectives of fixed quality.

On the basis of these criteria, housing property costs are defined as annual mortgage principle and interest payments and real estate taxes paid on residential property purchasable by middle income families consisting of a representative site for existing houses plus the cost of new construction for a standard one-family house of fixed size. The data are presented in Table 4.

Best meeting this definition and these criteria[10] are the

---

[10] The ACCRA housing cost data do not meet the above four criteria for a number of reasons: (1) The mortgage and interest payments reported are for a very small sample of newly constructed homes suitable for high (middle management income level) budget families. The new houses are primarily located in suburban development areas and therefore do not reflect site prices of existing homes typical for the entire urban area.

(2) The houses priced for middle management wage earners are substantially beyond the average family income and therefore represent a "cost of living" for a specialized high income group. Geographical price differences may vary with the price level of the houses involved. It is likely, for example, that high priced houses are proportionately more expensive in large cities than in small cities compared to the ratio for more modestly priced houses. Cost of living based on high priced houses would thus overstate cost differentials compared to an index based on intermediate priced housing.

(3) ACCRA's effort to control quality is necessarily limited by the few units priced. Although a physical descriptions of the "standard" house to be priced provides field agents some guidance in selecting a "typical" structure, site choice "with access to schools, shopping centers, etc." remains wide open. The attendant range of prices is considerable with no assurance that high or low values are not reported.

house price data reported by the Department of Housing and Urban Development for FHA loans and the Dodge new construction cost data published by McGraw Hill. The data are presented in Table 4.

The U.S. Department of Housing and Urban Development yearly publishes extensive housing data derived from the Federal Housing Administration operations under Section 203. FHA publishes city (MSAs) prices for purchases or refinances by the occupant of one-family existing homes. Specific MSA data used in this study are median price of site per square foot and average effective real estate tax rates (derived). National averages for mean size of site and size of improved living area were used as weighting factors. For use in this study, gross site price was established equal to the FHA reported unit price ($/square foot) multiplied by a standard 7,700 square foot lot.

The FHA cases are a cross section of buyers with a cap on the maximum mortgage amount that may be insured of $90,000 ($101,250 in Alaska and Hawaii). The universe thus excludes high cost housing, strictly limiting the derived cost of living indexes to "middle income" families. Condominiums are also excluded. The average house sale price for FHA loans in the summer of 1987 equaled $70,600 as reported by the National Association of Realtors; for conventional fixed rate 15 year mortgages, $110,000; and for 30 year mortgages, $138,800. The data thus represents typical middle income buyer costs for existing homes located in the residential areas of the specified MSA's.[11]

The variability of house prices in the same county can be illustrated by this example. In 30 neighborhoods in Montgomery County, Maryland in 1986, single family house prices ranged from $84,000 to $240,000. Based on nearly 19,000 sales, the average sale price of 1,689 houses sold in the Germantown neighborhood was $91,476. At the other extr e, 875 homes in the Potomac neighborhood sold for an average rice of $223,180. Many of these neighborhoods may have included houses meeting the ACCRA standards. Source: Rufus S. Lusk & Son, Inc.

(4) Finally, ACCRA housing costs do not include property taxes. And the inclusion of apartment monthly rental rates prevent unambiguous use of the data for homeowners exclusively.

[11] HUD reports only about 10 percent of the 400,000 or more single family cases contracted each year. The average number of cases per city for the 344 cities reported in 1980 was 120, ranging from a low of 1 to a high of 2,023. The small

The cost of new construction is used as a proxy for pricing essentially the same house in different cities. House structure price is set equal to unit construction cost times a standard 1,500 square foot improved area. The Dodge Construction Index[12] is employed to represent the relative geographical differences in the price of a new house of fixed design and specifications. A major assumption made here is that in the local common housing market the price of existing houses are proportional to the prices of new houses since they may generally be substituted. In other words, replacement costs, i.e., the costs of new construction, drive the prices of existing homes. Local housing realtors provide excellent market information with potential buyers exercising exceptional care in making life's major purchase. Most buyers are knowledgeable of the alternatives including the value in purchasing a new versus old house. An informed consumer coupled with the large number of property sellers results in near perfect market action and extremely

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number of cases reported for some cities in a given year is obviously not representative. A three year time adjusted average of FHA data was used when possible to minimize the effects of individual year variability. As additional year data is introduced into this model, errors due to a small number of FHA cases will be reduced.

See U.S. Department of Housing and Urban Development, FHA Homes, 1985, Data for States and Selected Areas on Characteristics of FHA Operations under Section 203, Washington, D.C. 20410.

12 The Dodge Building Cost Indexes are published semi-annually (September and March) for approximately 600 cities. The index reports wage scales prevailing locally for 20 building tradesman and prices paid by builders for 10 basic materials available from local retail suppliers. These data are weighted to reflect the impact of the basic item components on the overall cost of a "typical" composite residential/non-residential building.

Trades represented include brick layer, carpenter, sheet metal worker, electrician, plumber, glazer, lather, plaster, painter, roofer, teamster, laborer, etc. Material items are ready mix concrete, reinforcement rods, concrete block, structural steel, plywood, lumber, gypsum board, asbestos shingles, electrical conduit, copper pipe, etc. Definitions for occupations and materials are specified. Reporting sources include general and specialty contractors in each city, building product distributors, construction labor consultants, and Chambers of Commerce.

See Dodge Unit Cost Data for U.S. and Canadian Cities, Volume 2, P. E. Pereira, Chief Editor, McGraw-Hill Cost Information Systems, P.O. Box 28, Princeton, New Jersey 08543.

competitive house prices. However, evidence to support this assumption is particularly difficult to obtain because of the inability to establish equal quality housing for pricing at different locations.

Home mortgage interest and principle rates are set at 8 percent applied to a mortgage equal to an estimated 80 percent of property value. Residential property taxes are estimated from HUD FHA effective property tax rates (taxes paid/property value) for 1985 and time adjusted previous years, multiplied by property values equal to site plus house value as determined above.

The above data are presented in Table 4. The data and computations are illustrated by the all-city average shown below:

FHA unit site price	$2.08/sq ft	
x FHA mean lot size	x 7,700 sq ft	
= SITE PRICE		$16,016
Dodge unit construction cost	$41.53/sq ft	
x FHA mean house size	x 1,500 sq ft	
= CONSTRUCTION COST		$62,295
	Property Value	$79,625*
Loan on property equal to 80% of property value	$63,700	
x 8% mort int & principle	x .08	
= YRLY MORTGAGE PAYMENTS		$5,096
Property value	$79,625	
x FHA effective property tax rate	x .0131	
= PROPERTY TAXES		$1,043
Total annual property costs		$6,139

*population weighted U.S. average

STEP #3: Development of budget weights and calculation of costs of consumption using ACCRA price and FHA property ownership cost data.

The weights for the CLI components to be priced are based on the mix of consumption expenditures in Table B with one modification. There is no price data for house furnishings and operations so the expenditure amount of $1,603 has been excluded. The resulting weighting system has been used:

Food, ACCRA	$3,709	16.8%
Property ownership (or Dodge construction alone)	$5,366	24.3%
Utilities, ACCRA	$2,451	11.1%
Transportation, ACCRA	$5,109	23.1%
Health, ACCRA	$950	4.3%
Miscellaneous, ACCRA	$4,524	20.5%
CONSUMPTION	$22,109	100.0%

The costs of consumption presented in table 3 are calculated in two ways depending on the availability of data. For 152 cities, consumption costs equal the ACCRA prices for food, utilities, etc., and the annual costs of property ownership (from Table 4). This is the principle measure of consumption of this study, indicated by the level #1 accuracy label. Dodge construction costs alone are substituted for property ownership costs and combined with ACCRA data to establish the costs of consumption for 61 cities where FHA data are not available. Substitution of this one proxy is identified as level #2 accuracy.

The correlation between property costs and Dodge new construction costs is .924. Consumption costs based on ACCRA data and property costs (level #1 accuracy) and ACCRA data and new construction costs (level #2) has an R-square of .9623 and a standard deviation of 1.85 index points.

STEP #4: Development of predictive equations.

Predictive equations were used to estimate consumption costs for an additional 366 cities for which ACCRA data are not available. Two equations are used to match the available data. Both are based on a regression of consumption costs (level #1 accuracy) as the dependent variable. For 90 cities, property costs are the independent variable and the derived consumption costs are identified as level #3 accuracy. For 276 cities, Dodge construction costs are the independent variable (level #4 accuracy). The regression tables and charts are presented in Appendix A.

The prediction model is based on a coefficient of regression for the independent variable and a constant:

90 cities in Table 1:
Predicted cost of consumption = .396 x property costs + 61.3
$\bar{R}$square = .830 Standard deviation = 3.9 index points (level #3 accuracy)

276 cities in Table 1:
Predicted cost of consumption = .603 x Dodge const costs + 40.5
$\bar{R}$square = .678 Standard deviation = 5.4 index points (level #4 accuracy)

The standard deviation (root mean square) of the predicted values for level #4 accuracy is 5.4 index points. This means that there is a 68 percent likelihood that the predicted values of consumption costs at level #4 accuracy (if normally distributed) are within + or - 5.4 index units of the consumption costs if empirically measured at level #1 accuracy. An additional 17 percent of the predicted consumption indexes will have values which vary from level #1 accuracy between + or - 5.4 and 10.8 index points. Five percent of the level #4 predicted values will vary from the empirical data by more than + or- 10.8 units.

The standard deviation of 5.4 percent or index points for consumption costs estimated at level #4 accuracy will likely not generate sufficient confidence in the results to warrant use in wage negotiations. Inclusion of other predictor independent variables will likely improve the goodness of fit and remains a future task.

Home heating cooling costs were developed as an additional independent predictor variable (see Appendix D). However, home heating and cooling is a small component of total consumption with a low correlation. Inclusion did not appreciably improve the prediction and it was therefore excluded. The heat-cool costs developed are believed valid and may be of use in future development of cost of living models.

STEP #5: Inclusion of taxes and price independent expenditures.

Families whose real income is affected by the cost of living in their area have to pay personal and other taxes at a rate based on their nominal income level, i.e., on the cost of living adjusted amount. Thus families pay proportionally more (less) taxes relative to their real income in high (low) cost areas. The cost of living measurement, must, in turn be adjusted to account for these tax payment differences if after tax real wages are to be equal. In the past Federal and most state individual income taxes were progressive, requiring a substantial upward adjustment in cost of living in high cost areas to account for the additional tax burden imposed on their higher adjusted incomes. BLS made this adjustment in their reported budgets through a complicated adjustment procedure involving computations of state tax amounts on various income levels.

In 1987, Federal income taxes will uniformly tax incomes at the intermediate level at basically a single rate. State and local income taxes set proportional to Federal taxes will also follow this single rate. Since the tax is no longer progressive at intermediate family income levels, the required adjustment to cost of living will be more uniform than in the past. In fact, in some high cost areas, Federal and state income taxes are now

"priced" lower than other purchases and their inclusion results in a cost of living index less than that for consumption alone. Similarly, in low cost areas, a fixed tax rate may result in a higher "priced" "tax expenditure" than other purchased items, raising cost of living above cost of consumption.

Price independent items are purchases which are either not priced, such as payments into a retirement fund, or are priced at locations other than the family's residence, such as out-of-town hotel and food purchases. In constructing the cost of living index, these price independent components which amount to 13.6 percent of the family budget are priced at a neutral 100 value.

To include Federal and state personal income taxes and price independent expenditures in cost of living, and to adjust city CLI values to account for differences in the amount of income taxes paid in high and low cost areas, the following formula (see derivation in Appendix B) is employed:

$$CLI = \frac{(\text{Percent consumption} \times CI) + (\text{Percent independent exp} \times 100}{1 - \text{Federal and state tax rate}}$$

CI = city cost of consumption index.

Percent consumption equals the national average percent of total family expenditures used for consumption = .693 (see text Table B for percentages).

Percent price independent expenditures equals the national average percent of total family expenditures used for purchased of price location independent items = .136.

$$CLI = \frac{.693 \times \text{Consumption Index} + 13.6}{1 - (.142 + \text{state tax rate})}$$

For Federal taxes a fixed rate of 14.2 percent has been assumed based on a 1984 tax liability of $4,900 on income of $34,441 for a married couple with two dependents reported by the U.S. Department of the Treasury. The source of state personal income tax burdens by family income level used in this study is data collected by the District of Columbia government,[13] and is reported in Table 3.

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[13] Government of the District of Columbia, Tax Rates and Tax Burdens in the District of Columbia: A National Comparison, D.C. Govt., Washington, D.C., June 1986.

Local government individual income tax payments equal one-tenth the amount of state income taxes.[14] Yet, for an individual city they can be a factor in cost of living. The resources available for this study did not permit the extensive search required to identify individual city tax rates.

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[14] U.S. Department of Commerce, Bureau of the Census, Governmental Finances in 1984-85, U.S. Government Printing Office, Washington, D.C., October 1986.

III. EQUILIBRIUM WAGES AND THE VALUE OF AMENITIES

The fairness of wages is in constant contention. Workers and management continually bargain wage rates for each occupation and skill level. Also bargained are adjustments for inflation to equalize yearly purchasing power. The Consumer Price Index, prepared by the U.S. Bureau of Labor Statistics, is used by management and labor in these negotiations as an accepted measure of inflation affecting the general consumer.

Recognized but seldom practiced in salary negotiations is the need to preserve geographical purchasing power. The principle is that employees performing the same job at different locations under similar working conditions should receive the same real wage (equal purchasing power). While this objective is appreciated, it is not practiced because no index for geographical price differentiation exists on a par with the CPI.

Cost of living indexes have had limited use in management labor negotiations,[15] however, such indexes are deficient for negotiation purposes because of their inclusion of amenities associated with location for which compensation is not normally required. This section identifies equilibrium wages as long run competitive wages of equal real value in each location, suitable for negotiation of geographic wage differentials. Equilibrium wages report cost of living less an estimated economic value of location specific quality of life factors.

Before proceeding, a short discussion of the widely recognized concept of "prevailing wages" is warranted to establish its unacceptability for purposes of measuring geographic nominal wages of equal purchasing power.

Rejection of Prevailing Wages

"Prevailing wages" are average or typical wages in a given community. They represent the price of labor set by supply and demand in the labor market. The problem in using prevailing wages to identify geographical wage differentials is the fact that market wages is more a concept than a unique measurable reality.

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[15] In 1967 a salary contract formula was signed between the 650,000 members of the Communications Workers of America, AFL-CIO, and the American Telephone and Telegraph Company using cost of living exclusively to establish wage differences between labor markets. See Robert R. Nathan Associates, Inc., Geographical Wage Standards for Reclassification of Work Locations in the Telephone Industry, Communication Workers of America, AFL-CIO, Washington, D.C., 1965.

Factors which vary by location influence salaries in many ways including the local supply and demand for labor, unionization, urbanization, local cost of living, and the quality of life. It is the effects on salaries of these factors alone that must be measured; all other factors must be held constant. Obviously the nature and quality of the worker service (occupation, training, experience, age, sex, physical attributes, etc.) must be held constant. Also the demand factors of the buyer (employer) must be constant including the industry, firm size and profitability, and working conditions. To identify only the effects of geography on salaries, requires measurement of a negotiated salary level at each location for a given quality worker in the same occupation and industry, established in a competitive informed market independent of the employer's wealth, size, bargaining skills, or working conditions.

These factors cannot, of course, be held constant in data collection. However, certain statistical treatment may be employed to reduce the influence of unwanted variables. The exceptional complexities and the vast amount of data involved precluded this approach here. Further, knowledge of the data variance provides little initial confidence that such an analysis would be productive.

Preliminary study of the available data[16] suggests that a hierarchical wage structure by occupation, by industry, and location, in fact exists. For example, in most areas, banks and department stores pay switchboard operators more than they pay clerks. Banks generally pay more to both occupations than do department stores. Finally, banks and department stores in high cost cities such as New York pay higher salaries for both occupations than are paid in low cost cities such as Atlanta. However, the wage data, limited to a few occupations within selected industries by metropolitan area, is extremely erratic without consistent patterns.

For example, for any location there is great variance in wages for a given occupation. This variance makes the term "prevailing wage," if defined as a median value, relatively meaningless, since the mean represents a near single case with little predictive value for much of the salary range. Secondly,

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[16] The principal and perhaps exclusive source of salary data by occupation, industry, and geographical location is the Industrial Wage Survey, Bureau of Labor Statistics, U.S. Department of Labor. Surveys are conducted periodically for 27 manufacturing and 18 non-manufacturing industries, reporting salary data for primary occupations by selected metropolitan areas. Levels within occupations are defined by job descriptions.

the hierarchy of occupation wages is not always consistent, even within the same industry. Thus banks pay secretaries more than computer operators in some cities, less in others. Third, within industries, geography plays and erratic role. For example, bank clerks are paid 20 percent more in Boston than in Atlanta, while department store clerks receive 7 percent less. In summary, use of existing wage data for the purpose of this study was found unprofitable and further unnecessary in view of the superiority of "equilibrium real wages."

Equilibrium Wages

Equal real wages can be soundly defended as the basis for establishing geographical wage differentials. Without becoming too technical, under conditions of pure competition equilibrium, the efficiency of use (marginal productivity[17]) of additional workers hired by each firm is equal, and all workers are placed in their highest paying and most productive employments. In this equilibrium, wage rates for a given occupation are the same for all firms and thus workers have little incentive to move. Since the equilibrium wage rate is a real wage (equal purchasing power), geographical differences are simply measured by the cost of living. But equilibrium wages encompass more than the equivalency secured by equal real wages. Equilibrium wages (including standard fringe benefits and working conditions) establish equal worker satisfaction with the nominal compensation received considering the community living conditions of the employment location. Thus geographical differences in equilibrium wages is a hedonic measure reflecting cost of living plus compensation or adjustment to account for the value workers place on the quality of life in one location as opposed to another.

The equilibrium concept is important, not because equilibrium is ever in fact attainable, but because it shows us the direction which economic changes proceed toward greater economic efficiency. Equilibrium results in a "correct" allocation of any given labor resource which maximizes net national product. This allocation also results in minimal worker transfers. Both objectives are desirable from the standpoint of the worker, firms, and society.

This study identifies "geographical differences in equilibrium wages" as the percent or relative difference in wages between locations necessary to establish equal purchasing power

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[17] Equal marginal productivity is when the amount of receipts added by the employment of additional workers equals the wages paid. In order words, the salary paid in a given occupation is exactly equal to the contribution to the value of the firm of additional employees.

plus compensation for amenities such that workers are indifferent to moving. The differentials are primarily an adjustment for cost of living, and, since the family market basket for most workers are similar, the differentials are assumed equal for all occupations.[18]

Before proceeding it is necessary to recognize that firms may attempt to maximize immediate profits by taking advantage of any temporary local conditions in the market that allow workers to be hired at "prevailing wages" less than the equilibrium real wages presented here. These short term advantages result from worker ignorance of wage and employment opportunities and other restrictions[19] which prevent free competition and market action from establishing equilibrium conditions. Identification of these community wage rates was found unfeasible as discussed in the previous section. Such wage differentials, however are not the objective of this study, since prevailing wages are inequitable from the worker's standpoint and temporary in nature, shifting the advantages of firms from one labor market to another, and therefore do not represent the economic justifiable and stable differences of equilibrium wages--characteristics required of any index to be broadly accepted.

It is also possible for firms to pay more than the equilibrium wage level. To illustrate, in attractive high cost areas, profitable expanding firms may temporarily set salaries at or above the cost of living to attract workers. Unless this condition becomes prevalent in the area, eventually establishing competitive high salaries and accompanying price increases, firms need not continue to pay workers more than current equilibrium

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[18] Note that educational level and other job related factors affect the values workers place on the various aspects of living conditions. This means that adjustment for amenities should possibly be distinctly defined by occupational groupings. This variation however, is likely to be slight and is a detail beyond the scope of this study. Thus a single set of geographic wage differentials represents all occupations and industries.

[19] Factors which prevent obtainment of equilibrium and correct allocation of resources are the presence of monopoly in product markets, monopsony in resource markets, and certain non-price impediments in worker movements. Lack of knowledge on the part of workers may prevent them from moving from lower paying to higher paying positions. Ties to particular communities, to friends, and to family may restrict mobility regardless of the monetary incentives to move. Workers may accumulate pension and seniority rights which they are reluctant to give up. These factors among many suggest the scope and complexity of the economic system which prevents obtainment of equilibrium.

wages. In theory, firms need only pay workers for cost of living less adjustment for location related benefits in order to be competitive. Salaries may vary and switch above and below the equilibrium level but these are temporary market conditions.

The Value of Amenities

The amenities of concern here are the non-pecuniary, non-transportable conditions of living or quality of life associated with a particular geographical location. These living conditions include both economic and employment factors such as job opportunities, salary levels, stability of employment, and in-plant working conditions, and also demographic and social factors such as climate, quality of schools, proximity to cultural and recreational opportunities, absence of crime, required commuting distance, and so on.

Equilibrium wage differentials are equitable in reflecting only cost of living differences for the same national average quality of living. Thus costs associated with above average amenities must be subtracted from cost of living in attractive areas to derive equilibrium wages. Conversely, cost of living must be adjusted upward as compensation for less than average quality of living in unattractive areas.

The economics involved state that workers will continue to move from one location to another until all are equally satisfied by a combination of wages and living conditions. These movements direct workers toward an ultimate distribution which under conditions of pure competition equilibrium maximize and equalize their marginal productivity and wages. What is sought in this study is the adjustment to real wages necessary for equilibrium, i.e., the adjustment of real wages which make new workers entering the labor force and unaffiliated with the locations involved, indifferent to the location of their employment.

A number of studies identified in the bibliography approach this problem through multiple regression analysis. Some attempt to ascertain the value of amenities as a component of wage differentials attributable or best explained by factors associated with quality of life.

Use of Site Price The approach taken here recognizes the creditability of assessing the value of amenities through actual market pricing. Stated differently, the real relative value of living in two locations is the price difference buyers are willing to pay to reside in each. The best evidence of this willingness to pay for location is site price, i.e., the relative attractiveness of various locations is indicated by the price buyers are willing to pay for property sites to locate there. The buyer normally takes into account all aspects of the location including the fact that the cost of living in the area may be

higher. Workers chose that combination of real wage and residential property price such that their monetary and non-pecuniary satisfactions are maximized.

The fact that residential property prices are determined by many factors (including local firm productivity) other than the individual's aesthetic and other preferences is irrelevant to the evaluation of location. The high price of residential property in New York City, for example, is due, in part, to the high productivity of the industries located there and the diverse and well-paying job opportunities present. However the worker's decision to pay this high property price versus lower prices in a nearby suburb or to consider relocating to a distant city, exclusively reflects his personal evaluation of amenities including job opportunities and proximity to work versus a long commute.

Property site price is the exclusive measure of detailed location preference. Other factors associated with property ownership such as structure cost and property taxes are taken into account by the buyer in appraising site value but such factors generally do not reflect variations in location detail, e.g., block to block differences. Recognize that we are considering here only permanently zoned residential lots which are not subject to commercial speculation including the fact that they are usually too small for subdivision or division is prohibited by local ordnance. Without the possibility of commercial speculation the price of the lot reflects only the buyer's preference for the location.

What is sought in site pricing for estimating the value of residential location is the relative fixed cost differences between parcels typical for each location independent of the variable costs associated with lot size. That is, what would be the price of equal sized typical lots in various cities assuming the size chosen is equally available at each location. (It must be assumed that lot size and location quality in the same city are independent.) In reality, the average size of lots varies considerably from one city to another indicating that what is "typical" in one city is not in another. Also, neither the available data on total lot price or unit price per square foot equals fixed costs.

Two extremes illustrate the problem. In large cities, with expensive lots of fairly restricted but uniform size, the variable costs associated with the relatively limited range of available lot sizes are small relative to the high fixed costs. In these instances, the city mean value of site total price are only slightly higher than, and may be used to represent, fixed costs. Thus total rather than unit price is the better indicator of the buyer's evaluation of location where lot sizes are restricted. In these instances the size of the lot is location

specific and should be considered a non-transportable amenity, i.e., the buyer takes into account the lot size restrictions of a location in establishing the market price.

In opposite fashion in rural areas where expansion is feasible and relatively inexpensive, there is a great range of residential lot sizes and consequently the total lot price depends on the buyer's preference. In these instances site price on a unit bases per square foot best reflects the relative value of land location.

It is judged that in most cities and urban areas, the buyer has considerable choice in lot size so that unit pricing of site is the more realistic measure of location value. Unit pricing is, of course, the way in which commercial and farm land is sold as are all goods with a productive capacity related to size or amount.

House prices and real estate taxes are not included in the value placed on location. The same house has a different price in different locations due primarily to variations in construction costs. The buyer's willingness to pay this difference and associated real estate taxes are reflected in the price negotiated for the site. These costs as with all other items purchased are components of cost of living, are not detailed location specific, and do not <u>exclusively</u> reflect location value.

The value of non-transportable location specific amenities described above is estimated here by the unit prices of residential sites ($/square feet) for single family homes reported by the Department of Housing and Urban Development. The relative value of amenities (site price) is expressed as a population weighted Amenity Index (AI) with the U.S. average equal to 100.

The indexes for 242 cities for which HUD data are available are reported in Tables 1 and 2. An index value of 60 means that the value of amenities (as evident in residential site prices) is 60 percent of the national population weighted average of 100. An index of 130 means that amenities in that location are valued 30 percent greater than the national average.

<u>Amenity Weighting</u> To obtain equilibrium wages the relative value of amenities must be deleted from cost of living. The budget weight to be attached to location specific amenities for this purpose is difficult to determined. Direct evidence of the dollar amounts involved are yearly mortgage payments and real estate taxes paid on site costs. In Table B, mortgage interest and principle and property taxes equal $4,798. The site component is roughly 20 percent of this amount or $960, which is 2.8 percent of the family's total expenditure budget.

It is believed however, that imperfections in the housing market restrict the range of site prices. The principle imperfection is the immobility of workers caused by a large number of reasons including desire to retain job seniority and pension accrual, adaptation to location including presence of relatives and friends, need to preserve children's educational continuity, the disruption of moving and associated costs, lack of information on distant job opportunities, and general unfamiliarity with the relative attractiveness of other locations. If workers were informed and mobile, site prices would likely be bid up in attractive areas, lowered in less attractive areas. However, adjustment of site prices to account for such market imperfections is not possible. As an alternative, the greater range (not relative differences) in site prices can be approximated by increasing the weight attached to amenities in deriving equilibrium wages. This tactic has been adopted here.

To account for imperfections in the housing market cited above, the relative importance of amenities in family consumption is estimated at 6 percent of the budget, approximately twice the share devoted to site payments. The U.S. average yearly hypothetical payment for location specific amenities in the 1984 family budget of $34,441 is then $2,066.

The formula to exclude variations in amenity value from cost of living to derive equilibrium wages is:

Equilibrium wages = cost of living wages - net value of amenities
net amenities = local amenities - national ave amenities
amenity budget weight = 6 percent
W = the national average wage
AI = city amenity index

$$EWI \times W = CLI \times W - (AI \times .06 \times W - 100 \times .06 \times W)$$

$$EWI/CLI = 1 - .06(AI-100)/CLI$$

The following text table illustrates extreme high and low amenity adjustments using the above formula.

	CLI	CLI wage	AI	Local amenity value	Net amenity value	EWI wage	EWI
U.S.	100	$34,441	100	$2,066	0	$34,441	100
San Diego	112	$38,574	283	$5,847	+$3,781	$34,793	101
Augusta, Ga	92	$31,686	30	$620	-$1,446	$33,132	96

	EWI/CLI
U.S.	1.000
San Diego	.902
Augusta, Ga	1.043

For attractive areas such as San Diego, amenities then have a net monetary value of $3,781, with the CLI of 112 being reduced by this amount to an Equilibrium Wage of 101. A negative net amenity value of $1,446 in Augusta Georgia raises the CLI of 92 to 96. With family total expenditures of $34,441 (Table B), the -$1,446 to +$3,781 range in net amenities is approximately +/- 7.6 percent of the budget. It is estimated that this level of monetary adjustment would make new workers relatively indifferent to alternative employment locations.

Note that values for the EWI/CLI ratio are estimated for 337 cities without Amenity Indexes based primarily on state average values.

IV. COST OF PUBLIC SERVICES

Because of keen interest in the fair distribution of funds to schools, the principal work in developing geographic cost adjustment factors has focused on district level school finance.[20] Despite the soundness of this research, only a few states--Florida and Alaska among them--are using the findings and only in a limited way. Both states distribute state aid to local school districts by adjusting for differences in consumer prices. Such a cost-of-living adjustment reflects differences in salaries paid to teachers to maintain their equal purchasing power, but it does not accurately reflect differences in the cost of the total education package purchased by district governments.[21] Needed is a cost of providing government services, the final objective of this study.

There has been useful exploratory work at the state level to develop government geographic cost adjustment factors.[22] This work has clearly substantiated the presence of inter-state cost variations. However, these indexes have been used primarily to illustrate procedure and data deficiencies, and are not suitable for practical application. The works at both the district and state levels make it clear that federal grant monies and state and local government revenues should be adjusted for geographical price differences. However, there are some objections centering

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[20] See, for example, Alvin S. Rosenthal, Jay H. Moskowitz, and Stephen M. Barro, Developing a Maryland Cost of Education Index, AUI Policy Research, Washington, D.C., 1981.
For an excellent summary of the state of the art and bibliography, see Jay G. Chambers, Cost and Price Level Adjustments to State Aid for Education: A Theoretical and Empirical Review, Stanford Education Policy Institute, School of Education, Stanford University, Stanford, California, 1981.

[21] See Jay G. Chambers, William T. Hartman, and Phillip E. Vincent, Florida's Price of Living Index and Alternative Cost of Education Adjustments: A Framework and Evaluation, Report No. 2, SRI International, Florida Department of Education, 1980.

[22] Most noteworthy is the work done at the Center for Governmental Research, Inc., under the direction of Friedrich J. Grasberger. Using data recognized as severely limited (salary data without holding occupation mix and quality constant), the study never-the-less ably illustrates the feasibility of the market basket approach to index construction, and, more important, "...demonstrates the potential effects of adjusting Federal grants-in-aid for the geographic variations in the cost of government." See Melinda G. Meyer, Cost of State and Local Government Indexes, A Working Paper, Center for Governmental Research, Inc., Rochester, New York, 1978.

more on political sensitivity than the desire for equitable funding. The issues of equity and cost adjustment are discussed briefly in a later section.

Index Parameters

In general, a geographical cost index measures the relative price that a given type of jurisdiction in various locations would negotiate or be required to pay for a standard "market basket" of goods and services of fixed quality, purchased for a specific function or set of activities. Only the component of price variation that is beyond local control is measured. The index itself is the ratio of local prices and wages to national average values.

The jurisdictions in this instance are the city and other local governments associated with the 579 MSA and urban areas reported, and the 50 state combined state-local governments and the District of Columbia. The activities, whose purchased goods and services are to be priced, are the current operations of the principal public human services of state and local governments, i.e., education, health, police and fire protection, welfare administration, and related state and city-county level support functions. It is believed that the geographic cost differentials developed, uniformly apply to these labor intensive government activities. The special material and energy requirements of capitol intensive public services, however, such as highways, utilities, and sewerage and sanitation, prevent their inclusion.

The standard "market basket" is an estimated national average budget of the goods and services purchased by state and local governments to operate public services; excluding direct assistance and subsidies to individuals. (The relative purchasing power of subsidies to individuals is established by the Cost of Living Index.) The budget is simplified to four markets for which prices in the geographic detail required are available--labor, consumer, energy, and national. These items are representative of all the items purchased. Development of the budget is presented in Appendix E.

The equilibrium wages used are real wages equal to the marginal productivity of all workers in a given occupation that would exist under the theoretical conditions of pure competition equilibrium. Equilibrium wages equal the cost of living adjusted for quality of life such that each worker is equally satisfied. This concept and derivation of equilibrium wages is discussed in the previous section.

These parameters establish the Cost of Public Services Index (CPS) which reports the relative minimum negotiated market prices and equilibrium wages that state and local governments would have to pay for a standard market basket of goods and services of

fixed quality specifications purchased annually for the current operations of their collective public human services, excluding direct assistance and subsidy outlays. Use of the CPS must be limited to revenues or expenditures directly related to the current operations of labor intensive public services, excluding funds for interest, capital investment, equipment expenditures, and direct aid or subsidies to the public. The type of budget for which the CPS is applicable is illustrated in Table E-2.

The CPS city indexes are based on a city population weighted U.S. average equal to 100. The state CPS indexes equal a population weighted average of the cities within the state. The state indexes are then automatically based on a state population weighted U.S. average equal to 100. Note that the relative values of city and state indexes remains the same regardless of the weighting scheme employed.

Government jurisdictions differ in the importance they attach to various public services and in their capacity to support such services. Thus the quality of worker services purchased varies, e.g., one jurisdiction may require that secondary school teachers have a masters degree and 5 years experience, another a bachelor degree and no experience. For this reason alone, actual wages paid cannot be used for index construction.

Assuming quality is held constant, other factors controlled by the jurisdiction also influence wage levels. Wealthy states are susceptible to paying more than necessary for a given quality because of their affluence and expectations of better quality. Poor states may be forced to pay less than a reasonable minimum wage and still be able to secure employees in a depressed market. Governments may also temporarily influence prices if they are the sole purchaser (monopsony) of a certain good or service such as public school teachers and law enforcement officers. Finally, although more a factor in the purchase of goods than labor, large states may receive discounts by buying in quantity (economies of scale). Variation among jurisdictions in these factors, particularly wealth, also prevent use of actual wages paid as price inputs.

Prices Used for the Cost of Public Services Index

State and local governments purchase goods and services in five markets (derived in Appendix E) which are believed sufficiently distinctive to warrant separate price series: labor, 79 percent; contracted services, 5 percent; energy, 5 percent; consumer goods, 9 percent; and national goods and services, 2 percent. Because of present data limitations these five must be narrowed to four--labor, 84 percent; consumer, 9 percent; energy, 5 percent; and national, 2 percent. Fortunately because of its importance and variability the labor market is the primary

determinant of the overall price differences facing governments.

The labor market establishes the geographical wage differentials for government employees. The price series used is the equilibrium wage developed earlier. These differentials establish equal real wages for all occupations adjusted for non-transportable amenities. While equilibrium is only a concept, the conditions involved are approached when governments and workers negotiate salary levels generally informed of market conditions, and additional employees are hired until the marginal worker's productivity nears the salary level.

The contracted services market prices professional, technical, and skilled services such as consultants, engineers, data processing personnel, repair persons, security, maintenance and yard personnel, craftsmen, laborers, etc., contracted--not permanently employed--by state and local governments. Telephone, rent, insurance, water and sewerage, personnel training, medical services, local transportation, are the types of services governments may contract. No specialized price series is available. Since the services involved are labor intensive, it is assumed that equilibrium wages are applicable.

The consumer market prices the goods purchased locally by state and local governments. The items consist mostly of consumable supplies and materials for the office, classroom, laboratory, health units, and building and ground maintenance; food; and small, inexpensive equipment items not carried or depreciated as property. Recall that the CPS prices only human service operations so that supplies for buildings and roads are excluded. These items are likely to be purchased by jurisdictions in large quantities at wholesale prices. Also, some locations may have offsetting price advantage and disadvantages. However, other than these generalities little information is available on the quantities and prices of the specific goods involved. It is assumed here that the price differentials involved parallel that of the family consumption items priced for the CLI. These prices are used for pricing the consumer market component of the Cost of Public Services Index. To the extent that the actual price differences paid by governments are less than for family consumption, use of this component of the CLI to estimate prices in this market results in slight over-pricing in high cost areas, and under-pricing in low cost areas.

The national market includes the goods and services having no significant price differentials. This rarity occurs because there is a single or only a few supplies for certain high cost items or because patents and copyrights have created a monopoly or oligopoly product market. Fairly uniform prices also occur in highly competitive industries with low product transportation costs. Items and services which exhibit some uniformity in

pricing include telephone service, computer software and hardware, text and library books, camera film, etc.

The energy market is more complex than simple comparison of prices. Both prices and the type of fuel used locally, heating and cooling needs, and efficiency of conversion, all need to be taken into account. Thus the "price" involved is actually a yearly expenditure amount. Although pricing energy for government expenditure should employ commercial rates and perhaps other revision, ACCRA data for heating and cooling yearly costs for residences (including other electrical usage, telephone, and sewerage) has been used as the only available approximation. These ACCRA utility prices have previously been discussed in Chapter II. A separate development of alternative heating-cooling cost data is presented in Appendix D.

Cost of Public Services Index Application

The Cost of Public Services Index (CPS) reports geographical relative prices for major items representative of a fixed basket of goods and services state and local governments typically purchase for current operations of human service programs. The CPS indexes by city and state are presented in Table 1. The CPS is based on the 579 MSA and county population weighted U.S. average equal to 100.

The CPS may be used to adjust state and/or local government fiscal data to obtain equivalent purchasing power if two conditions are met. First, the governments involved must rigorously compete in the market for goods and services, paying minimal negotiated rates. In other words, the CPS will not establish equivalency involving excess payment or "over-pricing" for items of a given quality. Second, the finances involved must pertain to the current operating budget for public human services--education, health, police and fire protection, welfare, and related administration, exclusive of direct assistance and subsidies to individuals. Capital investment, equipment expenditures, and interest payments are excluded.

Since the CPS is based on a composite state and local government total budget, it is most applicable to state level aggregate current revenue and expenditure data. The CPS may be applied to specific broad pubic services such as elementary-secondary schools, colleges and universities, police and fire protection, etc., if the budget mix for these services does not vary significantly from the average distribution of government expenditures in the five markets. Because the price series for the markets over time are similar, small budget weight variations, have, in fact, almost no appreciable effect on index values. However, the CPS is not applicable to most detailed budgets, such as "instruction" in elementary-secondary schools, where expenditures do not follow the weighting pattern employed.

The technique for applying the CPS index is illustrated in the following application: The task is to allocate $100 million in federal aid among three states so that each receives equal purchasing power per unit of need. The data are:

State	Needy units	CPS	Amount received per needy unit	total
A	100,000	100	$161.29	$16,129,032
B	200,000	80	$129.03	$25,806,452
C	300,000	120	$193.55	$58,064,516
Total	600,000			$100,000,000

The formula to be used to derive the amounts received states that the total federal funding equals the sum of the amounts allocated to each state with amounts per needy unit (person) ratios of 100:80:120.

$$100{,}000(1.00\ Y) + 200{,}000(.80\ Y) + 300{,}000(1.20\ Y) = \$100{,}000{,}000$$

where Y = amount of aid per needy unit for CPS = 100 $\qquad$ Y = $161.29/needy unit

Three examples presented in Table C show the effects of applying the CPS to state fiscal data. The first application is to state and local government tax revenues per capita, which represents collected tax wealth relative to resident count as a rough measure of available resources per unit of public service need. The second application is to current expenditures per pupil in average daily attendance which measures the resources made available by state and local governments to support public instruction and administration of public elementary-secondary schools. The third application is to education appropriations per annual FTE student which reports state and local government funding for current operations of public colleges and universities less support for research, agriculture, and hospitals and medical schools.

Because some states with a high CPS also have very large populations, only 10 states have CPS values equal to or greater than 104. For these states, adjustment by the CPS results in lower dollar amounts of equivalent purchasing power. Twenty states have CPS's between 97 and 103 with adjustment resulting in relatively minor change in dollar amounts. For the 21 states with low CPS indexes (96 and lower), adjustment results in higher dollar amounts. Notice that when states are closely grouped small changes in amounts can result in substantial but relatively meaningless changes in rankings. Rankings thus often convey less meaning of relative position than does indexing.

The Politics of Cost Adjustment

The range in purchasing power among states in providing public services estimated in this study is from 92 to 117. Cost

Table C.
Application of the Cost of Public Services Index to State Tax Revenues, School Expenditures Per Pupil, and Appropriations for Public Higher Education per FTE Student.

State	Cost of Public Services Index CPS	Tax Revenues per Capita, 1983-84 Amount	Index	Rank	Adjusted by CPS Index	Rank	Estimated Current Expenditures for Public Elementary-Secondary Schools per Pupil in Average Daily Attendance, 1985-86 Amount	Index	Rank	Adjusted by CPS Index	Rank	State and Local Appropriations for Current Operating Education Expenses of Public Institutions per Annual FTE Student, 1985-86 Amount	Index	Rank	Adjusted by CPS Index	Rank
ALABAMA	94	$916	88	(48)	72	(47)	$2,729	73	(46)	78	(44)	$4,055	107	(13)	114	(10)
ALASKA	117	$4,704	347	(1)	296	(1)	$8,349	224	(1)	192	(1)	$14,038	371	(1)	317	(1)
ARIZONA	97	$1,246	92	(27)	95	(25)	$2,829	76	(43)	78	(43)	$3,398	90	(32)	93	(29)
ARKANSAS	93	$866	64	(51)	69	(51)	$2,642	71	(47)	76	(47)	$3,527	93	(24)	100	(20)
CALIFORNIA	102	$1,503	111	(13)	109	(10)	$3,608	97	(23)	95	(28)	$4,666	123	(7)	121	(7)
COLORADO	97	$1,339	99	(19)	102	(18)	$4,042	109	(14)	112	(12)	$2,617	69	(48)	71	(49)
CONNECTICUT	105	$1,656	122	(6)	116	(6)	$4,888	131	(6)	125	(6)	$4,436	117	(9)	112	(13)
DELAWARE	99	$1,400	103	(17)	104	(13)	$4,517	121	(9)	123	(7)	$4,011	106	(15)	107	(16)
DIST COLUMBIA	102	$2,300	170	(3)	166	(3)	$5,020	135	(5)	132	(5)	$7,715	204	(2)	200	(2)
FLORIDA	95	$1,073	79	(41)	83	(38)	$3,731	100	(20)	105	(16)	$3,484	92	(26)	97	(23)
GEORGIA	98	$1,073	79	(40)	81	(40)	$2,980	80	(38)	82	(40)	$3,958	105	(16)	107	(17)
HAWAII	110	$1,543	114	(11)	103	(16)	$3,766	101	(19)	92	(32)	$6,697	177	(3)	161	(4)
IDAHO	98	$953	70	(47)	72	(48)	$2,509	67	(49)	69	(49)	$4,205	111	(12)	113	(11)
ILLINOIS	102	$1,405	104	(15)	102	(19)	$3,621	97	(22)	95	(26)	$3,384	89	(34)	88	(38)
INDIANA	98	$1,093	81	(38)	82	(39)	$3,159	85	(33)	87	(35)	$3,299	87	(37)	89	(35)
IOWA	97	$1,273	94	(24)	97	(24)	$3,568	96	(25)	99	(21)	$3,390	90	(33)	92	(30)
KANSAS	95	$1,260	93	(26)	98	(20)	$3,914	105	(17)	111	(13)	$3,476	92	(27)	97	(25)
KENTUCKY	95	$955	70	(46)	74	(46)	$2,853	77	(42)	81	(41)	$3,547	94	(23)	99	(21)
LOUISIANA	93	$1,114	82	(36)	88	(34)	$3,124	84	(35)	90	(33)	$2,938	78	(45)	83	(43)
MAINE	96	$1,229	91	(30)	94	(27)	$3,346	90	(31)	94	(30)	$3,408	90	(31)	94	(27)
MARYLAND	100	$1,503	111	(12)	111	(9)	$4,349	117	(10)	117	(9)	$3,318	88	(36)	88	(37)
MASSACHUSETTS	110	$1,549	114	(10)	104	(14)	$4,642	125	(8)	113	(10)	$5,057	134	(6)	121	(6)
MICHIGAN	109	$1,575	116	(8)	107	(11)	$3,782	102	(18)	93	(31)	$3,622	96	(22)	88	(36)
MINNESOTA	103	$1,706	126	(5)	122	(5)	$3,982	107	(15)	104	(18)	$3,777	100	(20)	97	(24)
MISSISSIPPI	92	$871	64	(50)	70	(49)	$2,305	62	(50)	67	(50)	$2,515	66	(49)	72	(48)
MISSOURI	96	$1,012	75	(43)	78	(43)	$3,155	85	(34)	88	(34)	$3,261	86	(38)	90	(33)
MONTANA	97	$1,275	94	(23)	97	(23)	$3,947	106	(16)	109	(14)	$3,459	91	(30)	94	(26)
NEBRASKA	93	$1,232	91	(29)	98	(21)	$3,285	88	(32)	95	(29)	$2,725	72	(47)	77	(46)
NEVADA	98	$1,353	100	(18)	102	(17)	$2,932	79	(40)	80	(42)	$3,828	101	(19)	103	(19)
NEW HAMPSHIRE	101	$1,092	81	(39)	80	(42)	$3,114	84	(36)	83	(38)	$2,283	60	(50)	60	(50)
NEW JERSEY	108	$1,637	121	(7)	112	(8)	$5,536	149	(3)	138	(3)	$4,569	121	(8)	112	(12)
NEW MEXICO	93	$1,194	88	(32)	95	(26)	$3,402	91	(29)	98	(22)	$3,929	104	(17)	112	(14)
NEW YORK	115	$2,130	157	(4)	137	(4)	$5,710	153	(2)	133	(4)	$5,174	137	(5)	119	(8)
NORTH CAROLINA	94	$1,027	76	(42)	81	(41)	$3,366	90	(30)	96	(23)	$3,465	92	(29)	97	(22)
NORTH DAKOTA	95	$1,334	98	(20)	104	(15)	$3,059	82	(37)	86	(36)	$3,072	81	(41)	85	(39)
OHIO	100	$1,246	92	(28)	92	(31)	$3,547	95	(27)	95	(27)	$3,016	80	(43)	80	(45)
OKLAHOMA	96	$1,159	85	(33)	89	(33)	$2,752	74	(45)	77	(46)	$3,055	81	(42)	84	(42)
OREGON	104	$1,321	97	(21)	94	(30)	$4,123	111	(13)	106	(15)	$3,362	89	(35)	85	(40)
PENNSYLVANIA	107	$1,309	97	(22)	90	(32)	$4,168	112	(12)	105	(17)	$3,676	97	(21)	91	(32)
RHODE ISLAND	106	$1,403	103	(16)	98	(22)	$4,669	125	(7)	118	(8)	$4,397	116	(11)	110	(15)
SOUTH CAROLINA	95	$981	72	(44)	76	(44)	$2,920	78	(41)	83	(39)	$4,406	116	(10)	123	(5)
SOUTH DAKOTA	95	$978	72	(45)	76	(45)	$2,967	80	(39)	84	(37)	$2,768	73	(46)	77	(47)
TENNESSEE	93	$878	65	(49)	70	(50)	$2,533	68	(48)	73	(48)	$4,025	106	(14)	114	(9)
TEXAS	96	$1,115	82	(35)	86	(36)	$3,429	92	(28)	96	(24)	$3,085	82	(40)	85	(41)
UTAH	96	$1,133	84	(34)	87	(35)	$2,297	62	(51)	64	(51)	$3,871	102	(18)	107	(18)
VERMONT	100	$1,271	94	(25)	94	(29)	$3,554	95	(26)	95	(25)	$1,912	51	(51)	51	(51)
VIRGINIA	95	$1,210	89	(31)	94	(28)	$3,594	97	(24)	102	(19)	$3,222	85	(39)	90	(34)
WASHINGTON	98	$1,416	104	(14)	107	(12)	$3,705	100	(21)	102	(20)	$3,476	92	(28)	94	(28)
WEST VIRGINIA	98	$1,113	82	(37)	84	(37)	$2,821	76	(44)	77	(45)	$2,986	79	(44)	81	(44)
WISCONSIN	101	$1,556	115	(9)	114	(7)	$4,247	114	(11)	113	(11)	$3,514	93	(25)	92	(31)
WYOMING	96	$2,504	185	(2)	192	(2)	$5,440	146	(4)	152	(2)	$6,664	176	(4)	183	(3)

Sources: Tax Revenues—Governmental Finances in 1983-84, U.S. Department of Commerce, Bureau of the Census.
School Expenditures—Estimates of School Statistics, 1985-86, National Education Association. (Data updated slightly.)
Appropriations for Higher Education—State Profiles: Financing Public Higher Education, 1985-86, Research Associates of Washington.

variations of this magnitude can make it very difficult to administer federal grant programs to states equitably. Although there is no consensus of what constitutes "equity," adjustment for geographical price differences would help to achieve a more nearly equivalent level--in real terms--of public programs and benefits.

The case for such geographical cost adjustment is solid and has long been advocated by scholars including Selma Mushkin, Stephen Barro, Friedrich Grasberger, and Jay Chambers. The chief drawbacks have been the inability to demonstrate conclusively the validity of the indexes proposed and the reluctance of legislators to alter the balance of grants favoring poorer areas of the country.

Low prices and poverty with a high incident of need are often found together. With price adjustment, these poor areas receive proportionally less assistance than without price adjustment. However, low cost and poverty are not perfectly correlated. The poverty of central cities, as in the northeast for example, if often accompanied by high costs. Price adjustment would benefit these inner city poor communities. In the final analysis, equity is best served by accurate measurement of needs, wherever found, and price adjustment to provide equal real resources per unit of need. A basic problem is accurate measurement of complete needs. In poor districts the indirect ramifications of poverty and the total cost requirements of transition to productive citizenship are often not fully appreciated, leading to an understatement of public service needs relative to the possibly less complex requirements of more affluent areas.

A second consideration in geographical price adjustment is the contention that it interferes with market action. The argument in theory runs as follows: Geographical differences in wages, the price of services, and return on investment encourage the movement of workers, consumers, and firms to areas of greatest value. Unadjusted cash assistance payments create greater purchasing power for recipients in low cost areas, an incentive for people to migrate there. Similarly, fixed rate subsidies to businesses creates a competitive advantage in low-cost areas and stimulates migration. Over time this migration expands and improves the economy of these areas, resulting in more rapid growth than if such incentives were not involved. Since most low cost areas are also poorer, poverty is thus abated by stimulating growth by in effect a government subsidy. As the growth takes place, accompanying price increases (relative to other areas) automatically reduce the subsidy.

Actually, adjusting dollars for equal purchasing power represents market action reality--nonadjustment, in providing a subsidy, represents interference. This interference presents

some risks to efficient resource allocation. The excess government allocations create an attraction to workers and firms to migrate which is not initially supported by the immediate market. Should growth and price increases occur, use of unadjusted funding as a temporary catalyst is likely justifiable. However, if conditions prevent new firms and workers from achieving competitive status, a permanent subsidy may be required. Thus, where the potential for growth is poor, the use of unadjusted aid may develop an artificial dependent economy.

There is a much more compelling point to be made favoring price adjustment. There is a substantial penalty--current inequities and human deprivation--in continuing unadjusted dollar subsidy. Those in need in high price areas receive proportionally less aid than those with equal need in low price areas. No argument in favor of potential long term growth can justify inequitable treatment of immediate need realities. Equal needs warrent equal resources. If dollars do not buy equal resources, citizens are not equally treated. The pressing public service needs of their constituents and knowledge of the basic inequities which result from fixed amount funding should be persuasive to legislators in favor of price adjusted funding.

BIBLIOGRAPHY

American Chamber of Commerce Researchers Association, Inter-City Cost of Living Index, ACCRA, P.O. Box 68124, Indianapolis, IN 46268, quarterly, 39 pp.

Barro, Stephen M., et. al., "Construction of Indexes of Relative Cost of Public Services," Appendix B, Equalization and Equity in General Revenue Sharing: An Analysis of Alternative Distribution Formulas, Part 1: Alternative Interstate Distribution Formulas, Rand Corporation, Santa Monica, CA 90406, 1975, pp. 157-170.

Boyer, Richard, and David Savageau, Places Rated Almanac, Rand McNally & Company, Chicago, Illinois, 1985, 450 pp.

Buckley, John E., "Do Area Wages Reflect Area Living Costs?" Monthly Labor Review, November 1979, pp. 24-29.

Chambers, Jay G., Cost and Price Level Adjustments to State Aid for Education: A Theoretical and Empirical Review, Stanford Education Policy Institute, Stanford University, Stanford, Calif., March, 1981, 58 pp.

_____, "The Development of a Cost of Education Index: Some Empirical Estimates and Policy Issues," Journal of Education Finance, No. 5, Winter 1980, pp. 262-281. Response by Kenneth M. Matthews and Carvin L. Brown, No. 6, Fall 1980, pp. 236-238, and reply by Chambers, pp. 239-245.

_____, "Education Cost Differentials and the Allocation of State Aid for Elementary/Secondary Education," The Journal of Human Resources, Vol. XIII, No. 4, pp. 459-481.

Grasberger, Friedrich J., Developing Tools to Improve Federal Grant-In-Aid Formulas, Center for Governmental Research Inc., Rochester, New York 14608, March 1978, 149 pp.

Loatman, Bruce, A Theory and Development of Education Price Indices for the Public Schools, Killalea Associates, Inc., Alexandria, Virginia 22304, March 1980, 157 pp.

Marshall & Swift, Residential Cost Handbook, Los Angeles, Calif.

Matthews, Kenneth M., and Carvin L. Brown, "Determinants of Metropolitan Teachers' Salaries: Implications for School Finance," Journal of Education Finance, No. 5, Winter 1980, pp. 282-288.

McMahon, Walter W., and Carroll Melton, "Measuring Cost of Living Variation," Industrial Relations, Vol. 17, No. 3, October 1978, pp 324-332.

Moyer, Melinda G. Cost of State and Local Government Indexes: A Working Paper, Center for Governmental Research, Inc., Rochester, New York, November 1978, 14 pp.

Nathan Associates, Inc., Robert R., Geographical Wage Standards for Reclassification of Work Locations in the Telephone Industry, Communications Workers of America, AFL-CIO, Washington, D.C., January 1965, 146 pp.

Rosen, Sherwin, "Wage-Based Indexes of Urban Quality of Life," xxxxxxxxxxxxxxxxxxx, pp. 74-104.

Rosenthal, Alvin S., Jay H. Moskowitz, Stephen M. Barro, Developing a Maryland Cost of Education Index, AUI Policy Research, Washington, D.C. 20006, July 1981, 148 pp.

Runzheimer International, Ruzheimer Plan of Living Cost Standards, Rochester, Wisonsin.

United States Department of Labor, Bureau of Labor Statistics, "Autumn 1981 Urban Family Budgets and Comparative Indexes for Selected Urban Areas, News, BLS, Washington, D.C., April 1982, 10 pp.

_____, City Worker's Family Budget, Bulletin No. 1570-3, U.S. Government Printing Office, Washington, D.C., Autumn 1966, 113 pp.

_____, Three Standards of Living for an Urban Family of Four Persons, Spring 1967, Bulletin No. 1570-5, U.S. Government Printing Office, Washington, D.C., 1969, 92 pp.

Appendix A: Prediction of Consumption Costs

Table A-1 presents the statistics of distribution for the dependent variable consumption, the six components (food, HUDhouse, utility, transportation, and miscellaneous), and two additional independent variables as predictors--new construction costs and heating-cooling costs. The correlation matrix in Table A-2 can be used to determine the degree to which each of the components independently contributes to the costs of consumption. Utility costs are the least cross-correlated with other components and therefore this factor most uniquely contributes to the costs of consumption. Health costs is the most highly cross correlated and therefore tends to parallel the contribution of the other components.

To estimate consumption costs for an additional 366 cities, two predictive equations were developed based on a regression of the costs of consumption (described in the text in step #3) as the dependent variable. For 90 cities, HUD property costs data were available as the independent variable. As a proxy for property ownership costs, the Dodge Corporation construction index described in step #2 was used alone as the independent variable for 276 cities. In this latter regression, an R-square of .67 was obtained and a standard deviation of 5.4 percent, marginally acceptable for this initial study. Investigation of other independent variables to improve the estimates is warranted.

In the regression analyses, heating-cooling costs did not materially add to the predictive capacity of the model and this independent variable was excluded. However, the heating-cooling costs generated for this study are believed valid measures of geographical differences in this budget item and are presented in Appendix D.

The regression analyses, presented in Tables A-3 and A-4, establish the coefficient of regression to "weight" the independent variable and establish the constant in an equation to predict the consumption dependent variable. The regression equations are:

Predicted cost of consumption = .396 x HUD property costs + 61.3
R-square = .83 Standard deviation = 3.9 (level #3 accuracy)

Predicted cost of consumption = .603 x construction costs + 40.5
R-square = .678 Standard deviation = 5.4 (level #4 accuracy)

The standard deviation of the predicted values (Root mean square) of 5.4 means that there is a 68 percent likelihood that the predicted values (if normally distributed) are within + or- 5.4 index units of the index values for the empirical consumption costs based on the weighted average for the six components. An additional 17 percent of the predicted city indexes will have values which vary from empirical index values between + or - 5.4

and 10.8. Five percent of the predicted values will vary from the empirical data by more than + or - 10.8 index units.

A scatter diagram of predicted consumption versus actual consumption is shown in Figure A-1. The "residue" (actual-predicted consumption) is shown in Figure A-2. This last plot indicates that predicted values for consumption tend to be more frequently under estimated for high values; and more frequently over estimated for low values. This means that the predicted city values for consumption have a tendency to have less deviation from the average, either high or low, than likely actual values.

Table A-1. Statistics of Distribution.

```
. summarize consump food HUDhouse const utility trans health misc heatcool

 varname|  Obs        Mean    Std. Dev.       Min        Max
--------+--------------------------------------------------------
 consump|   77   100.871608   9.40059273   88.4940643   137.771317
    food|  106   100.081132    5.9607304   84.4000015   114.800003
HUDhouse|   77   100.000622   21.6456111   71.8735046   179.683762
   const|   75   99.9999611   12.9137729   80.3021088   140.803696
 utility|  106   101.560377   19.9329864   56.0999985   192.300003
   trans|  106   100.781132   8.50888742   79.1999969        129.5
  health|  106   100.464151   16.7101744   76.1999969   160.399994
    misc|  106   100.703774   5.47205745   90.3000031   119.199997
heatcool|   75   99.9066667   13.5109298          37.          128.
```

Table A-2. Correlation Matrix.

```
. corr consump food HUDhouse const utility trans health misc heatcool
(obs=75)

         |  consump     food HUDhouse    const  utility    trans   health
---------+---------------------------------------------------------------
 consump|   1.0000
    food|   0.6529   1.0000
HUDhouse|   0.9127   0.4868   1.0000
   const|   0.8235   0.3917   0.9244   1.0000
 utility|   0.4329   0.2486   0.1755   0.2397   1.0000
   trans|   0.7303   0.4726   0.6134   0.4576   0.0122   1.0000
  health|   0.8387   0.5878   0.7726   0.6750   0.2046   0.6253   1.0000
    misc|   0.7748   0.5773   0.5882   0.4831   0.3053   0.6210   0.6965
heatcool|   0.1738   0.2376   0.0456   0.0967   0.3817  -0.0488   0.1976

         |     misc heatcool
---------+------------------
    misc|   1.0000
heatcool|   0.1789   1.0000
```

Table A-3. Regression Analysis Using HUD Property Costs.

```
. regress consump HUDhouse
(obs=77)

   Source|       SS       df       MS              Number of obs =      77
---------+------------------------------           F(  1,    75) =  366.41
    Model|  5575.06645     1  5575.06645           Prob > F      =  0.0000
 Residual|  1141.14047    75  15.2152063           R-square      =  0.8301
---------+------------------------------           Adj R-square  =  0.8278
    Total|  6716.20692    76  88.3711437           Root MSE      =  3.9007

 Variable|  Coefficient   Std. Error      t     Prob > |t|       Mean
---------+--------------------------------------------------------------
  consump|                                                     100.8716
---------+--------------------------------------------------------------
 HUDhouse|     .3956839     .020671    19.142      0.000       100.0006
    _cons|     61.30297    2.114373    28.993      0.000             1.
---------+--------------------------------------------------------------
```

Table A-4. Regression Analysis Using Dodge New Construction Costs.

```
  regress consump const
(obs=75)

   Source|       SS       df       MS              Number of obs =      75
---------+------------------------------           F(  1,    73) =  153.81
    Model|  4486.90641     1  4486.90641           Prob > F      =  0.0000
 Residual|  2129.47904    73  29.1709457           R-square      =  0.6782
---------+------------------------------           Adj R-square  =  0.6737
    Total|  6616.38545    74  89.4106142           Root MSE      =   5.401

 Variable|  Coefficient   Std. Error      t     Prob > |t|       Mean
---------+--------------------------------------------------------------
  consump|                                                     100.7659
---------+--------------------------------------------------------------
    const|     .6029822     .048619    12.402      0.000       99.99996
    _cons|     40.46771    4.901737     8.256      0.000             1.
---------+--------------------------------------------------------------
```

Figure A-1. Plot of Predicted Consumption Versus Actual Consumption

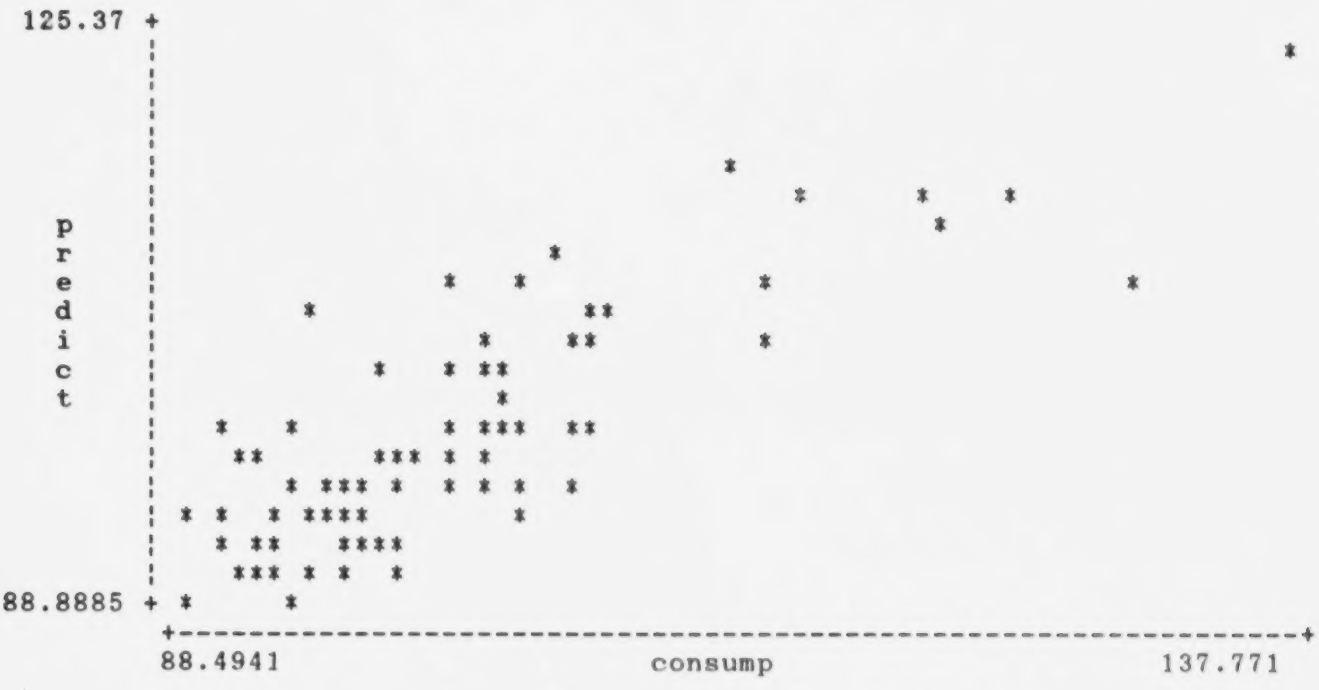
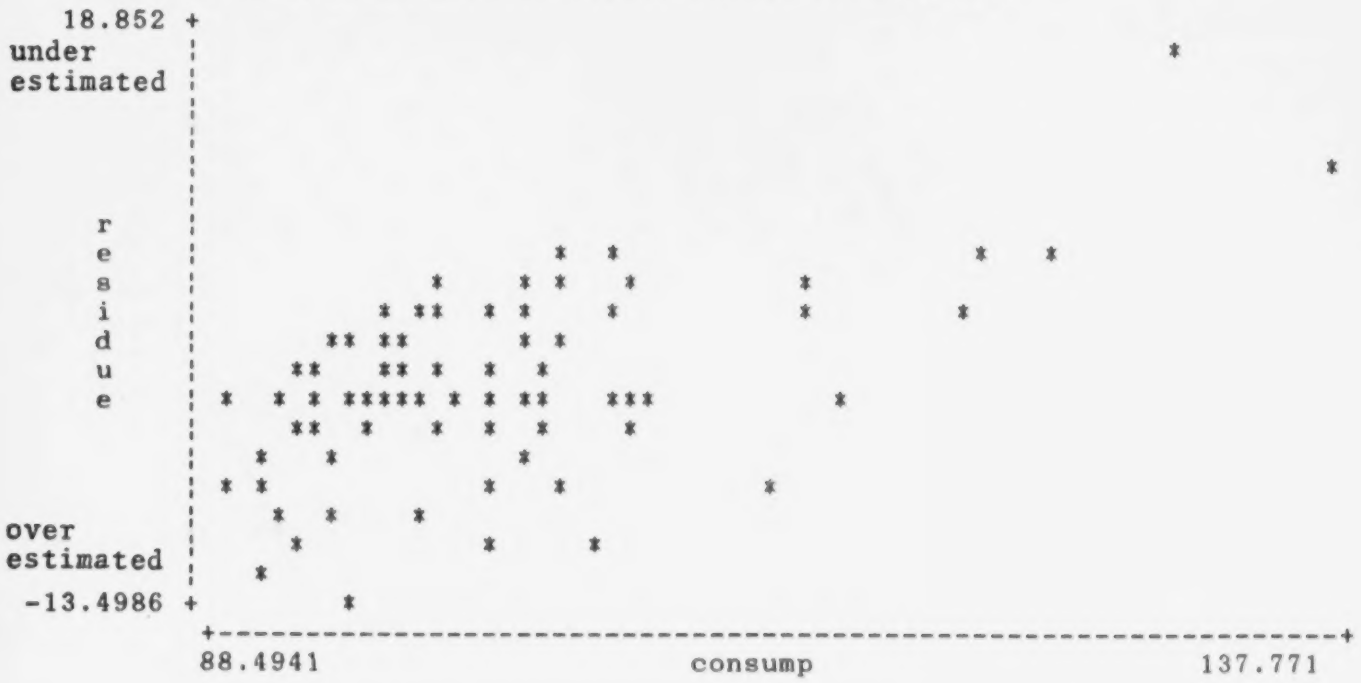


Figure A-2. Plot of Residue Versus Actual Consumption



Residue = Actual consumption - predicted consumption

Appendix B: Formula for Inclusion of Taxes and Independent Items

The adjustment of wages and salaries for cost of living affects personal income taxes calculated on the cost of living adjusted income. The change in taxes, in turn, alters cost of living. With this inter-dependency, progressive tax rates result in an upward adjustment of cost of living in high cost areas, a downward adjustment in low cost areas. Currently tax rates are essentially fixed for middle income families. Inclusion of non-progressive taxes in cost of living results in the indexes being lowered slightly in high cost areas, raised slightly in low cost areas. This occurs because taxes are a relatively low priced "purchase" is high cost areas relative to other items, tending to reduce overall budget costs. In low cost areas, non-progressive taxes are a relatively high priced item, requiring that cost of living be adjusted upward.

Derivation of the formula for cost of living to include the inter-dependency of personal income taxes, and include items purchased whose price is not location specific, is as follows:

Terms reported as national averages are in bold. All other terms report city values..

CLI = city Cost of Living Index
CI = city Cost of Consumption Index
Income = national average family income.
Taxes = Federal, State, and local personal income taxes paid.
Rate = Federal, State, and local personal income tax rate.
Exp = city average total family expenditures; **Exp** = national average.
Consumption = national average family expenditures for consumption.
Independent = national average family expenditures for items whose price is non-location specific.

Taxes = (Income x CLI x Rate).

From Table A, family income and expenditures are essentially the same, therefore substituting Exp for Income:

(1) **Taxes = (Exp x CLI x Rate)**

also
(2) **Exp = (Consumption x CI) + (Independent x 100) + Taxes**

and
(3) **Exp x CLI = Exp**

Substituting (1) and (2) in the right side of (3):

Exp x CLI = (Consumption x CI) + (Independent x 100) + (Exp x CLI x Rate)

$$CLI \times Exp \times (1 - Rate) = (Consumption \times CI) + (Independent \times 100)$$

$$(4) \quad CLI = \frac{(Consumption/Exp \times CI) + (Independent \times 100)/Exp}{(1 - Rate)}$$

From Table B, the ratio of U.S. national average consumption to total expenditures is .693; for independent item expenditures to total expenditures, .136. Substituting in equation (4):

$$CLI = \frac{(.693 \times CI) + 13.6}{(1 - Federal - State\ Tax\ rate)}$$

where the Federal tax rate is .142

Appendix C: Model for Estimating the BLS Budget

The BLS intermediate family budget, for reasons cited below, was not used in this study to derive geographical cost of living differentials. However, early in the investigation, a regression model was developed to predict cost of living using the BLS budget as the dependent variable. The model is presented here to document the findings.

The BLS intermediate family budget is exceptionally detailed and compiled with deliberate attention to many refinements. However, BLS last published the budget in 1981. A model, carefully developed for that time frame, would be deficient for current use because: (1) the component weights used were based on 1967 family buying patterns which are now seriously obsolete, (2) only 40 observations (cities) are involved and these are not necessarily representative of the total universe, and (3) use of the relatively small CPI pricing structure, designed to report a time series, in all probability, was insufficient to meet the much larger sampling structure required to accurately measure geographical price differences.

The Dependent Variable

The Bureau of Labor Statistics "Intermediate Family Budget" reports expenditures in 40 cities required to purchase a fixed market basket of goods and services typical of a 4-person family with a "middle income" ($27,000 in 1981) level. A historical record of the budget indexes for 40 cities for the 1975 through 1981 period is presented in table C-1. (Note 15 cities were dropped by BLS after 1978.)

For purposes of developing an unambiguous model for home owners only, the rent component has been deleted from subsequent values of the BLS budget. The BLS indexes are further modified so that the U.S. metropolitan average equals 100. The resulting indexes for 25 cities in 1980 and 15 cities in 1978 are presented in the first column of table C-2.

Both Anchorage, Alaska and Honolulu, Hawaii have exceptionally high costs which are atypical. Exclusion of these two observations greatly increases the degree to which the sample represents the total universe. However, because there are so few observations, exclusion also greatly reduces the range of the independent variables, increasing the standard error for the coefficient of regression for each, and lowering the accuracy of their predictability (t values). Hence the model is based on 40 cities.

Independent Variables

The model utilizes the prices of family purchased items as input variables as opposed to proxy inputs. Use of item prices is preferable because, as actual components of the cost of

living, their relationship to the dependent BLS budget variable, is likely to be more stable over time. The relationship of proxy measures to the dependent variable is more tenuous, resulting in less predictable validity.

The 40 observations of the dependent variable generally limits the regression analysis to 4 independent variables (40/10 = 4). The four chosen for which data are available for 560 cities, and two alternative variables limited to 240 cities, are:

1. New construction cost, 1987, Dodge (560 cites)
   Home ownership property costs, 1983-85 average, HUD (240 cities)
2. Heating and cooling costs, 1984 (560 cities)
3. State personal income taxes, 1985 (560 cities)
4. Automobile gasoline, 1986 (560 cities)
   Food, 1986, ACCRA (240 cities)

With the exception of automobile gasoline, the other variables are described in Chapter II. Note that home ownership property costs includes the cost of new construction.

Automobile gasoline is priced at the state level using price data published by the U.S. Department of Energy, Energy Information Administration, Office of Energy Markets and End Use. Gasoline prices at the state level are available for all cities in the universe and therefore gasoline is used as a substitute when required for food at home.

Indexes for these independent variables for the 40 cities are shown in table C-2. The indexes are based on a city population weighted U.S. average = 100. Valid estimates of home ownership property costs were available only as median values for 1983-85. This restriction and other considerations of availability and validity dictated the time frame for the independent variables. The fact that this time frame is not the same as that for the family budget (1980) is not a serious model deficiency because of the time stability of the dependent variable. This stability is evident in Table C-1 by noting the consistency in city relative values for the 1975-81 period.

Table C-3 presents the statistics of distribution for the dependent and independent variables.

Table C-4 presents the correlations. Note the .9263 correlation between new construction cost and home ownership property costs. They are near perfect substitutes for predictive purposes. The other substitution involves gasoline and food which are correlated .5155. The low co-linearity between the other independent variables indicates their independence as predictive factors.

The degree of linearity between the 6 independent variables and the dependent variable are shown in scatters diagrams, figures C-1 through C-6.

Regression Analysis

The regression analysis establishes the coefficients of regression to "weight" the independent variables in an equation to predict the dependent cost of living variable. The two regression analyses (one employing substitute variables) are presented in tables C-5 and C-6. Note all input data are in index form with the U.S. population weighted average for each independent variable equal to 100.

The t values (coefficient of regression / standard error) are large enough (statistical significance level) to indicate that there is little probability that the values of the coefficients of regression would occur by chance.

The resulting regression equations are:

Forecast #1 (240 cities)
City Cost of Living = .1893 x homeowner property costs +
.1197 x heating and cooling costs +
.0421 x state individual income taxes +
.3520 x food costs +
26.1155 constant

Forecast #2 (540 cities)
City Cost of Living = .3815 x new construction costs +
.1226 x heating and cooling costs +
.0254 x state individual income taxes +
.3717 x automobile gasoline costs +
7.0100 constant

The objective of the regression is to establish a high overall predictive capacity indicated by the adjusted R-square values of .8369 and .8223. (These high values should be expected because the independent variables are causal and in fact are components of the dependent variable.) Table C-7 presents the BLS cost of living indexes, the two forecasts, and the differences or residue for the 40 city observations. The linear relationship between the dependent variable and the forecast is shown in figure C-7. Figure C-8 shows that the residue is independent of the dependent variable.

The standard deviation of the predicted values (Root MSE) of 3.5231 means that there is a 68 percent likelihood that the predicted values (if normally distributed) are within + or - 3.5 index units of the BLS intermediate family budget. Thus the predicted cost of living indexes for about two-thirds of the cities are expected to have this degree of accuracy to what a BLS budget might report. Seventeen percent of the cities are likely to have predicted index values that vary from an expected BLS

budget between + or - 3.5 and 7.0. Five percent of the city predicted values are likely to vary from the BLS budget by more than + or - 7.0.

Proxy Variables for Predicting Cost of Living

While the prices of actual family budget items are believed to have the most stable and valid relationship to cost of living, it is an interesting exercise to explore the use of indirect measures for prediction. Two types of data were examined with little success. They are presented here to suggest the likely limitations of such data for this purpose. In both instances the principle data source is Places Rated Almanac, Richard Boyer and David Savageau, Rand McNally 1985.

The most optimistic and unlikely possibility is the existence of certain basic social, economic, and demographic data with predictive capacity. Six were chosen with the following correlations with the 1980 BLS intermediate family budget for 40 cities (Anchorage and Honolulu excluded):

1. Climate mildness, .32
2. Art and cultural facilities, .29
3. Supply of recreation assets, .47
4. Total population, .42
5. Population density (per square mile), .57
6. Family income, .42

Multiple regression of these six independent variables with the 1980 BLS intermediate family budget resulted in an adjusted R-square value of .45.

The second set of proxy measurements examined were city average home ownership costs and taxes with no quality factor adjustment. Four were chosen with the following correlations with the 1980 BLS intermediate family budget for 40 cities:

1. Average annual mortgage payments, .35
2. Average annual utility bills, .54
3. Average annual property taxes, .73
4. Average annual personal income and sales taxes, .72

Multiple regression of these four independent variables with the 1980 BLS intermediate family budget resulted in an adjusted R-square value of .73.

Regression analysis of a variety of combinations of these and additional variables resulted in a maximum adjusted R-square of .80. This exercise suggests that any simple set of variables is unlikely to reliably duplicate for predictive purposes the complexity of market actions and quality control which govern geographical cost of living differentials. Additional work of this type using the 579 urban area CLIs of this study as the dependent variable may be more fruitful.

Table C-1

Intermediate Family Budget, 4-Person Family, City Indexes, 1974-1981.

City	1981	1980	1979	1978	1977	1976	1975	1974
Boston, Mass.	115	117	119	119	120	119	118	117
Buffalo, N.Y.	104	104	106	105	107	106	106	107
New York City, N.Y.	116	116	116	116	117	116	114	116
Philadelphia, Pa.	105	105	104	104	104	104	102	103
Pittsburgh, Pa.	97	97	97	97	97	96	95	97
Chicago, Ill.	100	101	100	101	101	102	103	103
Cincinnati, Ohio	100	98	99	99	97	97	96	96
Cleveland, Ohio	101	101	102	102	102	101	102	102
Detroit, Mich.	99	100	101	103	102	102	103	100
Kansas City, Mo.	97	97	96	98	96	96	97	97
Milwaukee, Wis.	106	104	104	108	107	107	106	105
Minneapolis-St. Paul, Minn.	102	102	104	104	104	104	103	104
St. Louis, Mo.	96	96	97	96	96	96	97	97
Atlanta. Ga.	92	91	92	91	91	91	92	91
Baltimore, Md.	99	101	99	100	101	100	99	100
Dallas, Texas	89	90	89	90	90	91	91	90
Houston, Texas	93	93	93	92	91	92	92	90
Washington, D.C.	108	109	108	108	105	104	104	105
Denver, Colorado	98	99	100	100	98	98	96	95
Los Angeles-Long Beach, Calif.	98	97	97	95	100	99	99	98
San Diego, Calif.	98	98	98	95	98	98	98	98
San Francisco-Okland, Calif.	107	107	105	104	108	106	107	106
Seattle-Everett, Wash.	102	101	101	100	101	100	102	101
Honolulu, Hawaii	126	123	126	124	122	121	122	119
Anchorage, Alaska	126	128	136	141	140	142	139	133
Hartford, Conn.				104	104	106	107	108
Lancaster, Pa.				97	95	97	98	99
Portland, Maine				103	103	102	102	103
Cedar Rapids, Iowa				98	98	98	100	98
Campaign-Urban, Ill.				102	101	102	103	102
Dayton, Ohio				94	92	93	93	93
Green Bay, Wis.				99	98	99	99	99
Indianapolis, Ind.				98	98	98	99	99
Wichita, Kans.				95	93	93	94	93
Austin, Texas				87	86	88	88	86
Baton Rouge, La.				90	89	89	90	90
Durham, N.C.				97	96	96	97	97
Nashville, Tenn.				89	89	91	91	91
Orlando, Florida				88	87	89	89	89
Bakersfield, Calif.				92	92	92	92	91

Source: "Autumn (Year) Urban Family Budgets and Comparative Indexes for Selected Urban Areas," NEWS, U.S. Department of Labor, Bureau of Labor Statistics.

Table C-2

. list city budget const87 propcost heat incmtx85

	city	budget	const87	propcost	heat	incmtx85	gas	food
1.	Boston	115.7	116.	118.	124.	211.	100.	116.4
2.	Buffalo	102.	100.	95.	120.	123.	98.	103.8
3.	New_York	114.7	128.	145.	128.	123.	98.	108.9
4.	Philadel	103.9	112.	112.	109.	140.	100.	109.1
5.	Pittsbur	95.1	105.	102.	107.	140.	100.	97.7
6.	Chicago	99.	100.	101.	86.	123.	99.	102.5
7.	Cincinna	96.1	100.	88.	101.	105.	102.	103.3
8.	Clevelan	100.	110.	102.	96.	105.	102.	101.
9.	Detroit	99.	112.	113.	97.	170.	103.	111.5
10.	KansasCi	95.1	95.	81.	102.	82.	95.	105.
11.	Milwauke	102.	101.	107.	102.	140.	104.	99.
12.	Minneapo	100.	106.	100.	106.	193.	95.	95.9
13.	St_Louis	94.1	98.	85.	103.	82.	95.	95.
14.	Atlanta	89.2	85.	73.	94.	152.	97.	99.3
15.	Baltimor	98.	97.	104.	119.	199.	105.	101.9
16.	Dallas	87.3	91.	89.	118.	0.	97.	106.3
17.	Houston	91.2	87.	90.	94.	0.	97.	102.6
18.	Washingt	106.9	93.	107.	121.	199.	116.	111.6
19.	Denver	97.1	102.	105.	87.	117.	101.	101.8
20.	Los_Ange	94.1	118.	141.	43.	76.	98.	96.
21.	San_Dieg	96.1	116.	150.	37.	76.	98.	98.7
22.	San_Fran	102.9	125.	153.	66.	76.	98.	108.
23.	Seattle	98.	105.	109.	101.	0.	104.	110.5
24.	Hartford	102.	100.	99.	132.	0.	103.	107.4
25.	Lancaste	94.1	84.	77.	108.	140.	100.	102.
26.	Portland	101.	92.	86.	115.	82.	102.	105.4
27.	Cedar_Ra	95.1	89.	86.	94.	140.	105.	95.2
28.	Champaig	100.	97.	90.	91.	123.	99.	99.6
29.	Dayton	92.2	98.	85.	103.	105.	102.	102.
30.	Greenbay	97.1	91.	87.	112.	140.	104.	96.9
31.	Indianap	96.1	103.	88.	98.	158.	98.	97.5
32.	Wichita	93.1	83.	72.	95.	70.	103.	104.
33.	Austin	85.3	86.	88.	107.	0.	97.	106.7
34.	Baton_Ro	88.2	85.	72.	84.	35.	101.	96.7
35.	Durham-R	95.1	75.	66.	108.	175.	101.	96.4
36.	Nashvill	87.3	77.	65.	88.	0.	98.	99.
37.	Orland	85.3	83.	79.	107.	0.	100.	100.4
38.	Bakersfi	89.2	109.	102.	93.	76.	98.	98.
39.	Anchorag	119.6	146.	173.	98.	0.	113.	129.
40.	Honolulu	124.5	122.	158.	149.	228.	130.	115.

Table C-3

summarize budget const87 propcost heat incmtx85 gas food

varname	Obs	Mean	Std. Dev.	Min	Max
budget	40	98.0674994	8.72357196	85.3000031	124.5
const87	40	100.55	14.8944147	75.	146.
propcost	40	101.075	25.9836117	65.	173.
heat	40	101.075	20.5618361	37.	149.
incmtx85	40	102.6	66.7485907	0.	228.
gas	40	101.4	6.27489912	95.	130.
food	40	103.425	6.91867611	95.	129.

Table C-4

corr budget const87 propcost heat incmtx85 gas food
(obs=40)

	budget	const87	propcost	heat	incmtx85	gas	food
budget	1.0000						
const87	0.7240	1.0000					
propcost	0.7202	0.9263	1.0000				
heat	0.3996	-0.0869	-0.1351	1.0000			
incmtx85	0.4430	0.1293	0.1034	0.2827	1.0000		
gas	0.6253	0.2714	0.4090	0.4191	0.3080	1.0000	
food	0.6882	0.5655	0.5772	0.3675	-0.0621	0.5155	1.0000

Figure C-1

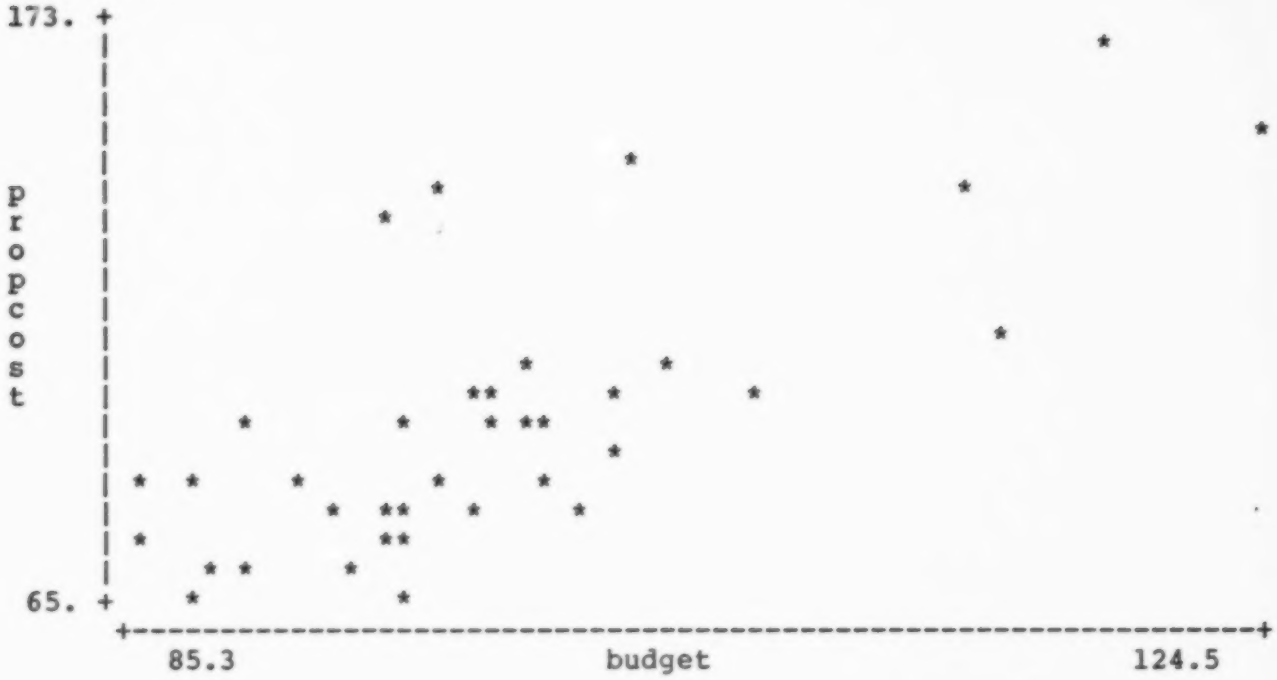


Figure C-2

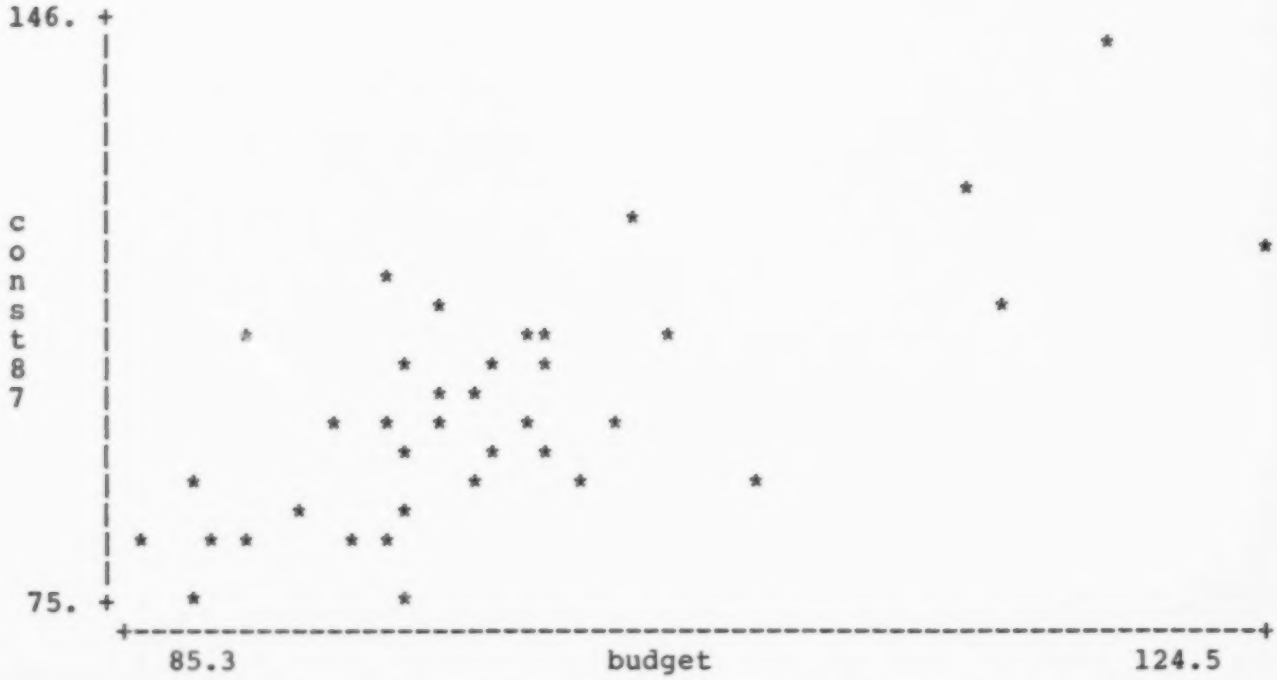


Figure C-3

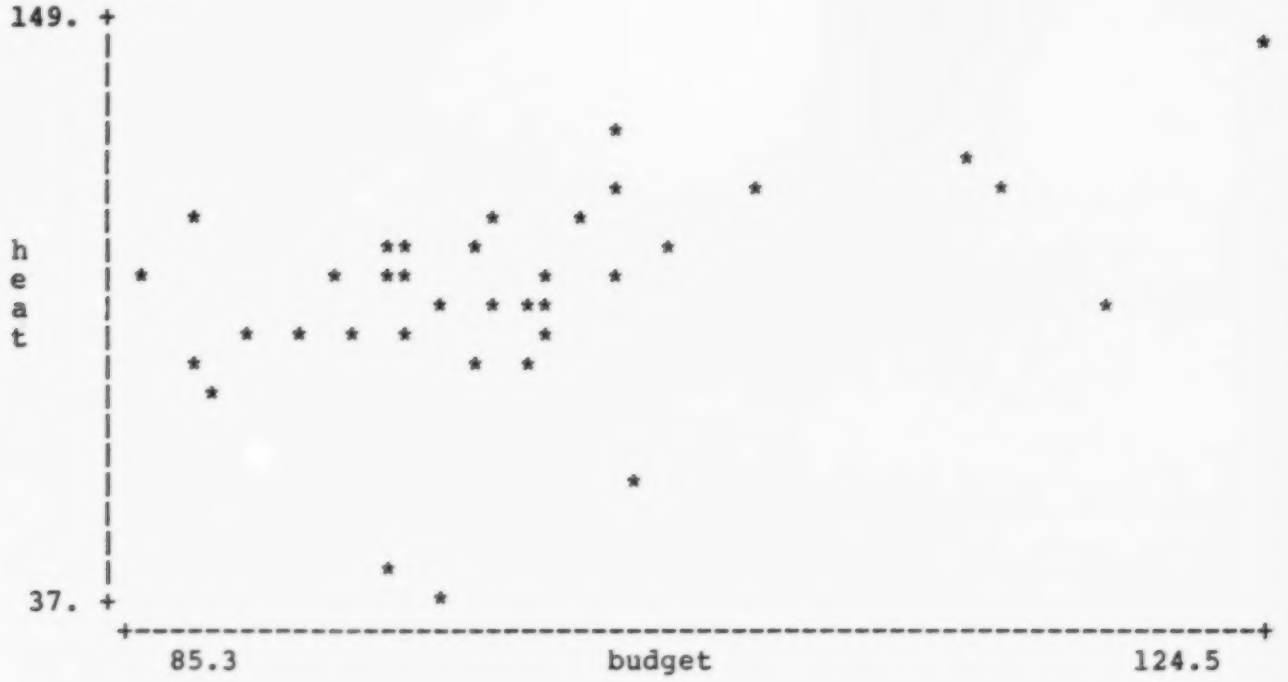


Figure C-4

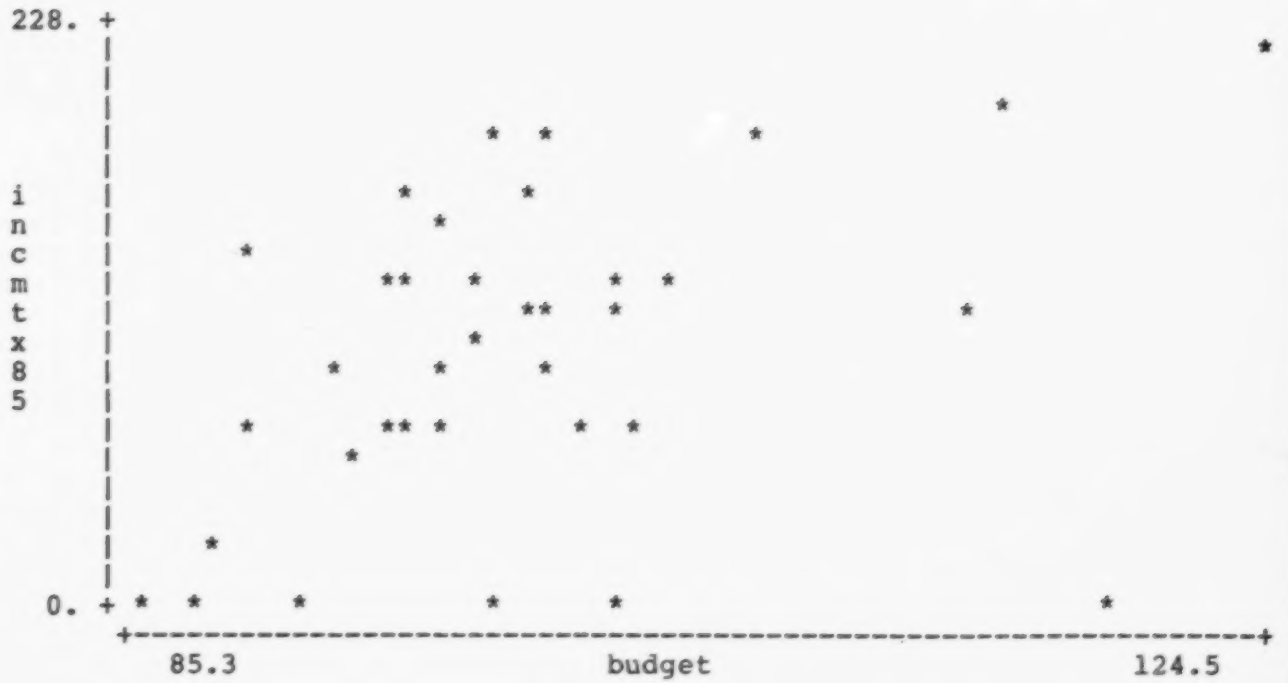


Figure C-5

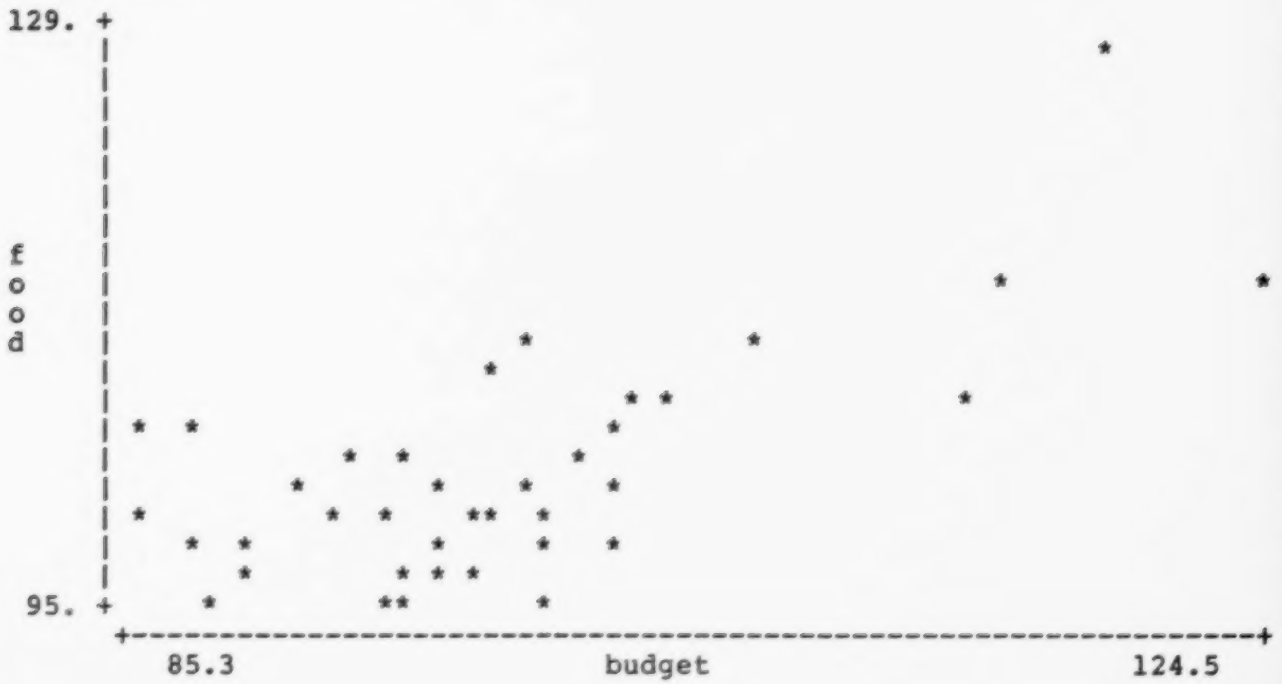


Figure C-6

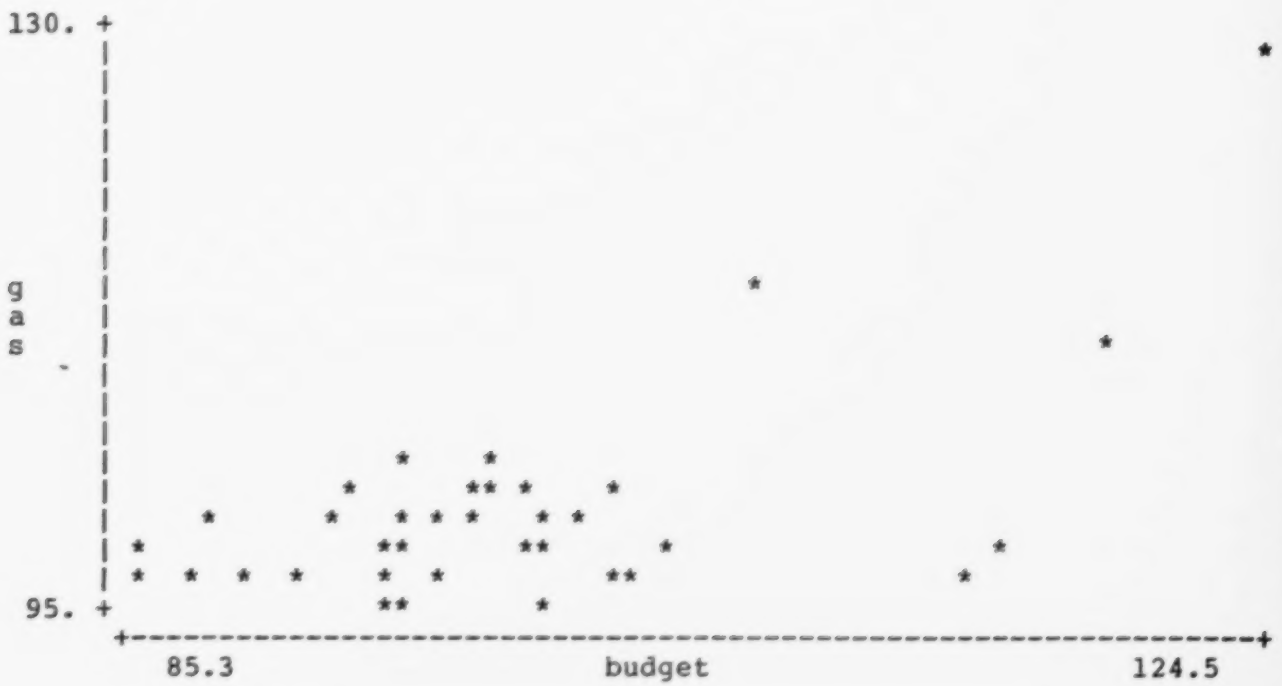


Table C-5

regress budget propcost heat incmtx85 food (obs=40) Regression #1

Source	SS	df	MS		
Model	2533.48849	4	633.372122	Number of obs =	40
Residual	434.439118	35	12.4125462	F(4, 35) =	51.03
				Prob > F =	0.0000
Total	2967.92761	39	76.1007078	R-square =	0.8536
				Adj R-square =	0.8369
				Root MSE =	3.5231

Variable	Coefficient	Std. Error	t	Prob > |t|	Mean
budget					98.0675
propcost	.189286	.0323554	5.850	0.000	101.075
heat	.1196504	.0374602	3.194	0.003	101.075
incmtx85	.0421237	.0097061	4.340	0.000	102.6
food	.3519884	.1302895	2.702	0.011	103.425
_cons	26.11546	9.87597	2.644	0.012	1.

Table C-6

regress budget const87 heat incmtx85 gas (obs=40) Regression #2

Source	SS	df	MS		
Model	2494.57664	4	623.64416	Number of obs =	40
Residual	473.350966	35	13.5243133	F(4, 35) =	46.11
				Prob > F =	0.0000
Total	2967.92761	39	76.1007078	R-square =	0.8405
				Adj R-square =	0.8223
				Root MSE =	3.6775

Variable	Coefficient	Std. Error	t	Prob > |t|	Mean
budget					98.0675
const87	.3815029	.0423964	8.998	0.000	100.55
heat	.1226474	.0330411	3.712	0.001	101.075
incmtx85	.0254438	.009466	2.688	0.011	102.6
gas	.3716986	.1116535	3.329	0.002	101.4
_cons	7.010015	9.903213	0.708	0.484	1.

Table C-7

```
. list city budget forcst_1 residu_1 forcst_2 residu_2

        city     budget    forcst_1    residu_1    forcst_2    residu_2
 1.    Boston      115.7    113.1474    2.552582    109.0111     6.68885
 2.   Buffalo      102.     100.1733    1.826706    99.43405    2.565948
 3.  New_York      114.7    112.3899    2.310059    111.0973    3.602684
 4.  Philadel      103.9    104.6566   -.7566376    103.8389    .0610886
 5.  Pittsbur       95.1    98.51181   -3.411812    100.9231   -5.823097
 6.   Chicago       99.     96.78331     2.21669    95.63574    3.364258
 7.  Cincinna       96.1    95.64071    .4592896    98.13256   -2.032562
 8.  Clevelan      100.     96.88289    3.117111    101.3344   -1.334351
 9.   Detroit       99.     105.5186   -6.518608    104.2456   -5.245552
10.  KansasCi       95.1     94.0649    1.035103    93.16059    1.939407
11.  Milwauke      102.     99.31757    2.682426    100.2706    1.729362
12.  Minneapo      100.     99.61256    .3874359     100.672   -.6719818
13.  St_Louis       94.1      91.4218      2.6782    94.42775   -.3277512
14.   Atlanta       89.2    92.53573   -3.335732    90.88885    -1.68885
15.  Baltimor       98.     104.2898   -6.289841    102.7025   -4.702522
16.    Dallas       87.3    94.49702   -7.197021    92.25394   -4.953941
17.   Houston       91.2    90.51234    .6876526    87.78439    3.415604
18.  Washingt      106.9    108.5113   -1.611282    105.5105    1.389511
19.    Denver       97.1    97.16097   -.0609741    97.11213   -.0121307
20.  Los_Ange       94.1    94.94204    -.842041     95.6614   -1.561401
21.  San_Dieg       96.1    96.87808   -.7780838    94.16251    1.937492
--more--

22.  San_Fran      102.9    104.1893   -1.289291    101.1528    1.747192
23.   Seattle       98.     97.72704    .2729568    98.11187   -.1118698
24.  Hartford      102.     98.45218    3.547821    99.63472     2.36528
25.  Lancaste       94.1    95.41286   -1.312866    93.03418    1.065819
26.  Portland      101.     96.70757    4.292427    96.21239    4.787613
27.  Cedar_Ra       95.1    93.04781    2.052193    95.08312    .0168762
28.  Champaig      100.     94.27865    5.721352    95.10447    4.895531
29.    Dayton       92.2    94.85457   -2.654572    97.61485   -5.414848
30.  Greenbay       97.1    95.98918    1.110817    97.68208   -.5820847
31.  Indianap       96.1    95.47279    .6272125    98.77085   -2.670853
32.   Wichita       93.1    90.66629    2.433708    90.39229     2.70771
33.    Austin       85.3    93.13238   -7.832375    88.99731   -3.697304
34.  Baton_Ro       88.2    85.30629    2.893707    88.17224    .0277557
35.  Durham-R       95.1    92.83391     2.26609    90.86288    4.237114
36.  Nashvill       87.3    83.79514    3.504868    83.60518    3.694824
37.    Orland       85.3    89.21128   -3.911278     88.9679   -3.667892
38.  Bakersfi       89.2    94.24638   -5.046387    98.36024    -9.16024
39.  Anchorag      119.6    115.9942     3.60582    116.7308    2.869164
40.  Honolulu      124.5    123.9334    .5665665    125.9499   -1.449852



. corr forcst_1 forcst_2
(obs=40)
         | forcst_1 forcst_2
---------+------------------
forcst_1|   1.0000
forcst_2|   0.9612   1.0000

.
```

Figure C-7

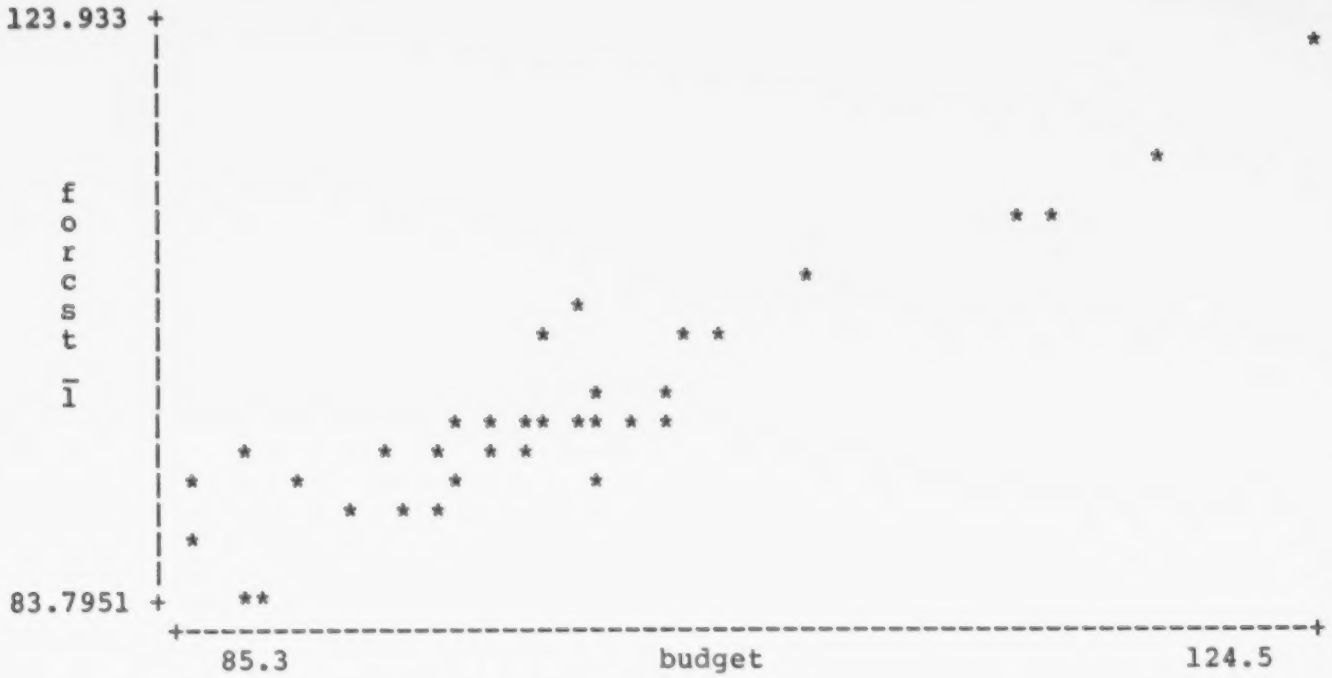
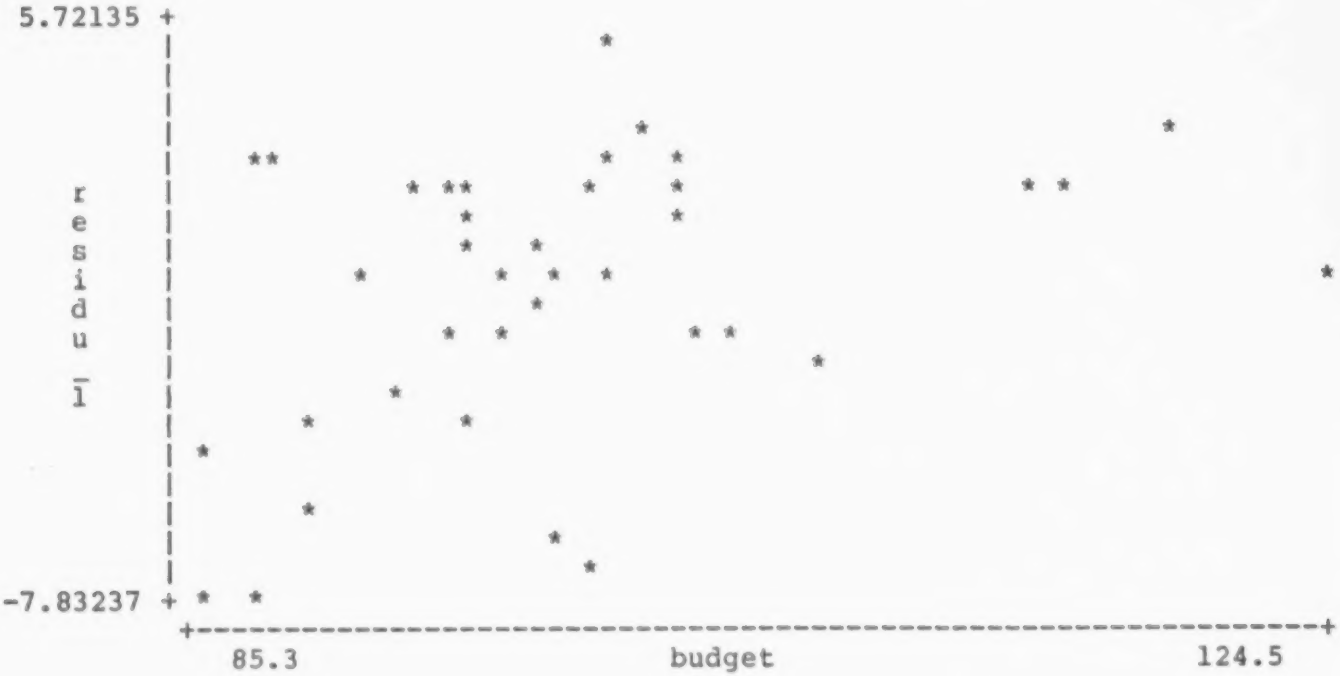


Figure C-8



Appendix D: Home Heating and Cooling Costs

Home heating and cooling costs are more complex than might be expected. What must be established are yearly heating-cooling expenditures for a typical single family residence of fixed size in each location. The expenditures differ across the country because of differences in climate, house construction as it affects heating and cooling requirements, the type of fuel available, and fuel prices. Buyers purchase the cheapest available form of usable fuel. States using more coal, such as Wyoming and West Virginia, have lower overall average energy prices than the New England states which depend heavily on petroleum. Since state buyers purchase the various fuels in different proportions, the overall price series for energy realistically prices a variable rather than fixed basket of energy sources.

Home heating and cooling costs may be estimated by multiplying heating (cooling) degree-days in each city by the state's average residential prime fuel rates (electrical rates for cooling), and by a efficiency of use factor which takes into account geographical variations in house insulation and personal comfort requirements. No additional measurement for electrical use for lighting and appliances was made.

The effects of climate on heating-cooling are measured in degree-heating and degree-cooling days as reported by the National Oceanic and Atmospheric Agency (NOAA).[1] An efficiency-of-energy-use formula was developed for heating and electrical use in BTUs per heating (cooling) degree-day per square foot

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[1] The National Oceanic and Atmospheric Administration collects climatography data and publishes annual degree days to selected bases for over 3,000 cities (airports, weather stations). Heating- and cooling-degree days are used to estimate the fuel consumption required over the heating season when outside temperatures fall below a assumed comfort level, and to estimate yearly energy requirements for air conditioning when outside temperatures exceed a level typically requiring inside cooling. One heating degree-day is reported for each degree that the daily mean temperature departs below the base of 65 degrees F. One cooling degree-day is reported for each degree that the daily mean temperature exceeds 70 degrees F. (75 or even 80 degrees would be preferable for the cooling based, however it is not reported by NOAA.)

See National Oceanic and Atmospheric Administration, Annual Degree Days to Selected Bases, Derived from the 1951-80 Normals, National Environmental Satellite, Data, and Information Service, National Climatic Data Center, Asheville, N.C. 28801, December 1982.

relative to the total degree-days involved.[2] It is assumed that efficiency of use is directly proportional to total heating (cooling) requirements.

The National Energy Commission publishes[3] residential prime energy price rates for each state which are averages weighted by the relative amounts of the various types of fuel purchased--coal, natural gas, and petroleum produces. The residential electricity rate is used as the price for cooling. The data detail is presented in Table D-1.

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[2] The heating efficiency factor in BTUs per heating degree-day is 18.8 -.00137 x heating-degree days. A maximum value of 16.5 and a minimum value of 7.5 is imposed. The cooling efficiency factor in BTUs per cooling-degree day is 2.6 + .00153 x cooling-degree days. A maximum value of 6.0 is imposed. The data used to derived these formulas were natural gas and electricity heating efficiency rates for nine Census Regions (unpublished data from the Residential Energy Consumption Survey, April 1984, Energy Information Administration, Office of Energy Markets and End Use, Energy End Use Division).

[3] See Energy Information Administration, State Energy Price Expenditure Report, 1984, U.S. Department of Energy, Washington, D.C., 1986.

Appendix E: State and Local Government Budget

The market basket to be priced for the cost of government operations must be applicable to any of the jurisdictions involved. It must therefore reflect the general proportions and types of services common to all state and local governments, and be applicable to the range of population sizes and densities, and climate of the various locations. A single index cannot be this representative and most indexes are constructed on the basis of a simple national average. Such an index is applicable to a given location to the extent that the goods and services purchased by the jurisdiction are similar to the national average selection and mix.

There is usually some latitude to alter the basket to account for the special circumstances in some jurisdictions. Thus, snow removal and other climate related expenditures are not uniformly required of all state and local governments, yet are a legitimate if inconsistent budget item. It is sound economics to compare the prices of slightly different market baskets if the jurisdictions involved are satisfied with their specific baskets given the site conditions. Slight variations in the basket composition will have only minimal effects on the composite index values. The Cost of Public Services Index developed here has no individual city or state adjustments of this type.

The market basket may be based on a physical count of items purchased, or the budget proportions expended for each item may be substituted as a proxy without error provided prices changes are expressed as relatives (percentages). The use of budget proportions avoids the difficult and time consuming task of a physical count. Since a geographical price index is fixed in time, a Paasche or variable-weight approach is required (as opposed to a Laspeyres-type, or fixed weight applicable to a time series inflation index). The budget proportions must be altered periodically to reflect changes in average purchase patterns, i.e., in physical count mix. Also, since prices of the various items will fluctuate, the budget proportions will change without a change in physical count proportions. This requires that the budget proxy be periodically adjusted to exclude inflationary changes.

The composition of expenditures for the current operations[1]

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[1] Excluded from the budget are capital (including equipment) investment, and governmental activities where current revenues substantially cover costs, i.e., government sales* (school lunch program, higher education auxiliary enterprises, trash collection, natural resources, etc.), and government enterprises (government operated utilities, public transit systems, public housing, toll roads and parking, liquor stores, lottery, etc.). Also excluded are direct assistance and subsidies to the public, and Medicaid. * Where expenditures exceed sales, net

of state and local governments is shown in Table E-1. Weights for the major divisions were derived from National Income Accounts data, Bureau of Economic Analysis, U.S. Department of Commerce. Subdivision weights were derived from median values of a number of state budgets secured from the National Association of State Budget Officers. The dominance of salaries and wages and related personal service expenditures in the budgets demonstrates the labor intensive nature of state and local government operations.

For pricing purposes budget items are organized by market as shown in table E-2. Five markets are represented: the labor market for pricing salaries, wages, and benefits of state and local government employees; the contracted services market for pricing personal and other contracted services; the energy market for pricing electricity, heating, and motor fuels; the consumer market for pricing goods purchased from local retailers and wholesalers; and the national market for pricing those few goods and services purchased from national distributors with minimal geographical price difference.[2]

Total current operations from Table E-1, excluding interest,[3] is shown in column 1. Columns 2 and 3 report the current operating budgets (similarly organized) for the two dominant[4] public services--elementary-secondary schools and

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expenditures are shown.

[2] Only a few items purchased by state and local governments are in this national market category. Postage is. So are long distance telephone, air travel, and books and periodicals sold by national publishing firms. This category may also include certain national brand supplies and materials sold through limited distributorship. Certain major equipment manufacturers may charge standard prices for repair services. The exact proportion of state and local government budgets subject to national market pricing is unknown. For purposes of index construction, it is assumed that about one-fourth of supplies and materials, small equipment replacement, and library materials are in this category.

[3] Payment of interest has been excluded from the simplified budget although normally classified as a current operating expenditure. The importance of interest payments in government total and specific function budgets varies greatly depending on local borrowing policy and size of construction programs. Because of this variance it is appropriate to exclude interest payments from comparison of program costs and consequently this factor is excluded from the Cost of Public Services Index.

[4] The relative importance of the labor component of public services (excluding direct assistance, subsidies, and highway material) is shown by the following 1982 full-time-equivalent

higher education--respectively. The budget weights for the CPS were estimated from all three distributions, taking into account the inclusion of additional energy and material proportions in the total budget for highways and utilities not covered by the CPS. The weights selected as a national average for government human services are labor, 76 percent; contracted services, 8 percent; energy, 5 percent; consumer, 9 percent; and national, 2 percent. Calculation of specialized indexes using the school and higher education distributions resulted in no significant state-by-state departures from index values derived from this selected CPS mix.

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employment distribution of state and local governments: education, 48.2%; health and hospitals, 12.1%; police and fire protection, 7.7%; highways, 4.7%; public welfare, 3.5%; local utilities, 3.4%, other and unallocable, 20.4%. Source: Bureau of the Census, U.S. Department of Commerce, Historical Statistics on Governmental Finances and Employment, Census of Governments, Volume 65, Topical Studies, Number 4 (Washington, D.C.: GPO, 1982).

Table E-1
Estimated Composition by Object Category of Current Operation[1] Expenditures of State and Local Governments, 1984.

Category		Percent of total expenditures
Salaries and Wages[2]		52.0*
Benefits and Retirement		12.7*
Professional Services		2.7
Consumable Supplies and Materials		7.5
Office	0.9	
Machinery and Equipment Operation	0.6	
Medical, Chemical, Research	1.2	
Food	0.5	
Building and Roads	4.3	
Current and Recurring Operating Expenses		15.7
Travel and Per Diem	0.9	
Contracted Maintenance and Repair	2.3	
Postal, Telephone, Communications	2.0	
Water and Sewerage	1.5	
Rent	1.5	
Energy	6.2	
Contracted Services	1.0	
Other	0.3	
Interest		9.4*

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[1] Current operations exclude capital and equipment investment, government sales and enterprises, direct assistance and subsidies, and Medicaid. See text footnote 1.

[2] The percent distribution of employees by occupation for state and local governments are as follows: professional specialty including faculty and teachers, 35%; administrative support including clerical, 18%; protective service including police and fire fighters, 15%; executive, administrative, and managerial, 9%; service except protective, 6%; technicians, 3%; all other, 13%. Source: Bureau of the Census, U.S. Department of Commerce, Detailed Characteristics of the Population, Chapter D, U.S. Summary, 1980 Census of the Population (Washington, D.C., GPO).

Sources: * identified percentages were derived from National Income Accounts data, Governments Division, Bureau of Economic Analysis, U.S. Department of Commerce, Washington, D.C., David Levin, contact. Other percentages derived from median values of individual state budgets classified by object provided by the National Association of State Budget Officers, Washington, D.C.

Table E-2
Distribution of Simplified State and Local Government Total, School, and Higher Education Current Operations Budgets Classified by Object for Pricing Purposes, 1984.

Market	Budget Object	Total State & Local Govt	School	Higher Education
Labor	Salaries and wages	56.3%		
	Professional	----	52.3%	46.8%
	Non-professional	----	11.9	14.5
	Benefits and retirement	13.7	13.7	17.2
	Total	70.0	77.9	78.5
Contracted Services	Professional, technical, & skilled services	6.4	3.3	3.7
	Communications	2.2	0.8	1.0
	Rent, insurance, other	2.0	3.4	---
	Water and sewerage	1.7	0.2	0.2
	Total	12.3	7.7	4.9
Energy	Prime fuel, electricity, auto fuel	7.6	3.7	6.1
Consumer	Supplies & materials	8.1	6.9	3.9
	Small equip replacement	---	0.6	2.1
	Library materials	---	1.2	2.5
	Total	8.1	8.7	8.5
National	Supplies & materials, small equip replacement, library materials	2.0	2.0	2.0

Weights for human services selected for Cost of Public Services Index: Labor, 76%; Contracted services, 8%; Energy, 5%; Consumer, 9%; and National, 2%.

Note: Fiscal data to be adjusted using the CPS must pertain to state and local government current operations in provision of public human services and relate to expenditures for the above object type classifications. Excluded are interest, capital investment, equipment expenditures, and direct aid or subsidies to the public.

Sources: Total state and local government budget derived from National Income Accounts data and individual state budgets, see Table E-1. School and higher education budgets updated (based on application of individual item inflation rates) from Kent Halstead, Inflation Measures for Schools and Colleges, National Institute of Education, U.S. Department of Education, Washington, D.C.

Table 1. Cost of Living, Value of Amenities, Equilibrium Wages, and Cost of Public Services, by City and State, 1985-87.
All indexes are based on a U.S. population weighted average = 100
There is some area and population overlap.
Estimation accuracy 1-4, high to low.
CPS = .84 x EW + .09 x consumption + .05 x utilities + .02 x 100

State		City or Urban Area	County	MSA or County 1980 Population	COST OF LIVING INDEX	AMENITY INDEX	EQUILIBRIUM WAGES	COST OF PUBLIC SERVICE	CLI & EW Estimation Accuracy
Alabama	MSA	Anniston, Bynum	Calhoun	119,761	87	21	92	92	1
Alabama		Ashland	Clay	13,703	90		94	94	4
Alabama	MSA	Birmingham	Jefferson	883,946	92	33	96	96	1
Alabama		Brent	Bibb	15,723	90		94	94	4
Alabama	MSA	Dothan	Houston	122,453	92		96	96	2
Alabama	MSA	Florence	Lauderdale	135,065	86	29	91	91	1
Alabama	MSA	Gadsden	Etowah	103,057	87	28	92	92	1
Alabama	MSA	Huntsville	Madison	196,966	90	29	94	93	1
Alabama	MSA	Mobile	Mobile	443,536	92	34	96	96	1
Alabama	MSA	Montgomery	Montgomery	272,687	90	41	94	94	1
Alabama		Munford	Talladega	73,826	90		94	94	4
Alabama		Selma	Dallas	26,684	90		94	94	4
Alabama	MSA	Tuscaloosa	Tuscaloosa	137,541	87	28	92	92	3
ALABAMA		Total pop 3,894,046		2,544,948	90		95	94	
Alaska	MSA	Anchorage	Anchorage	174,431	128	287	116	117	1
Alaska		Fairbanks	Fairbanks	22,645	127		116	119	2
Alaska		Juneau	Juneau	19,528	127		116	119	2
ALASKA		Total pop 401,851		216,604	128		116	117	
Arizona		Casa Grande	Pinal	90,918	94		95	95	4
Arizona		Douglas	Cochise	80,717	95		96	95	4
Arizona		Flagstaff	Coconino	74,947	100		101	100	4
Arizona		Kingman	Mohave	55,693	90		91	90	4
Arizona	MSA	Phoenix	Maricopa	1,509,052	96	95	98	98	1
Arizona		Prescott	Yavapai	68,145	99		101	100	4
Arizona	MSA	Tucson	Pima	531,443	92	81	93	92	1
Arizona		Yuma	Yuma	90,554	101		102	101	4
ARIZONA		Total pop 2,718,425		2,501,469	96		97	97	
Arkansas		Batesville	Independence	30,147	81		84	85	4
Arkansas		Blytheville	Mississippi	59,517	88		92	92	4
Arkansas		El Dorado	Union	49,988	89		93	93	4
Arkansas	MSA	Fayetteville	Washington	100,494	87	33	91	91	1
Arkansas		Forest City	St. Francis	30,858	88		92	92	4
Arkansas	MSA	Fort Smith	Sebastian	131,822	88	35	92	92	1
Arkansas		Hot Springs	Garland	69,916	89		93	93	4
Arkansas		Jonesboro	Craighead	63,916	88		92	92	3
Arkansas	MSA	Little Rock	Pulaski	474,484	92	41	95	95	3
Arkhnsas	MSA	Pine Bluff	Jefferson	90,718	88	36	92	92	1
ARKANSAS		Total pop 2,286,357		1,101,860	90		93	93	
Calif	MSA	Bakersfield	Kern	403,089	100	103	100	99	3
Calif		Bishop	Inyo	17,895	106		104	103	4
Calif	MSA	Chico	Butte	143,851	103	108	102	102	1
Calif		Eureka	Humboldt	108,525	105		102	102	4
Calif		Fairfield, Vacavle, Elmra	Solano	235,203	108	176	104	104	3

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State		City or Urban Area	County	MSA or County 1980 Population	COST OF LIVING INDEX	AMENITY INDEX	EQUILIBRIUM WAGES	COST OF PUBLIC SERVICE	CLI & EW Estimation Accuracy
Calif	MSA	Fresno	Fresno	515,013	103	129	101	101	1
Calif	MSA	Los Angeles (1)	Los Angeles	7,477,421	107	259	99	101	1
Calif		Marysville	Yuba	49,733	108		103	103	4
Calif		Monterey	Monterey	290,444	109		106	105	4
Calif	MSA	Oakland, Newark	Alameda	1,761,751	115	280	106	106	3
Calif		Pacifica, El Granada	San Mateo	588,164	112		109	108	4
Calif		Palm Springs	Riverside	663,199	102		100	100	3
Calif		Placerville	El Dorado	65,812	106		103	103	4
Calif	MSA	Redding	Shasta	155,813	102	96	102	101	3
Calif		Redwood City, San Bruno	San Mateo	588,164	110		107	108	4
Calif	MSA	Sacramento	Sacramento	1,099,814	103	132	101	101	1
Calif		Saint Helena, Rutherford	Napa	99,199	108		105	105	4
Calif	MSA	Salinas	Monterey	290,444	113	243	104	104	3
Calif	MSA	San Bernardino, Barstow	San Bernardino	1,656,182	100	109	100	99	1
Calif	MSA	San Diego	San Diego (city)	1,861,846	112	283	101	100	1
Calif	MSA	San Francisc	San Francisc	1,488,871	117	274	108	107	3
Calif	MSA	San Jose	Santa Clara	1,295,071	109	361	93	93	1
Calif		San Luis Obispo	San Luis	155,345	107		106	106	4
Calif	MSA	Santa Barbara, Sata Maria	Santa Barbara	298,660	110	201	104	103	3
Calif	MSA	Santa Rosa, Bodega	Sonoma	299,627	115	273	104	105	3
Calif	MSA	Stockton	San Joaquin	347,342	105	143	103	102	3
Calif		Susanville	Lassen	21,661	105		103	102	4
Calif	MSA	Visalia	Tulare	245,751	99	93	100	100	1
Calif		Winters	Yolo	113,374	106		103	103	4
CALIFORNIA		Total pop 23,667,947		22,259,264	108		101	101	
Colorado	MSA	Boulder, Allenspark	Boulder	189,625	97		98	97	2
Colorado		Castle Rock	Douglas	25,153	101		102	101	4
Colorado		Central City	Gilpin	2,441	101		102	101	4
Colorado	MSA	Colorado Springs, Calhan	El Paso	309,424	94	70	98	94	1
Colorado	MSA	Denver	Denver	1,428,836	99	128	97	97	1
Colorado		Florissant	Teller	8,034	104		105	103	4
Colorado	MSA	Fort Collins	Larimer	149,184	95	89	98	95	1
Colorado		Grand Junction	Mesa	81,530	96		97	96	2
Colorado	MSA	Greeley	Weld	123,438	99	84	100	99	3
Colorado		La Junta	Otero	22,567	95		96	95	4
Colorado		Lake George	Park	5,333	104		105	103	4
Colorado		Montrose	Montrose	24,352	97		99	97	4
Colorado	MSA	Pueblo	Pueblo	125,972	92	71	94	93	1
Colorado		Sterling	Logan	19,800	100		102	100	4
Colorado		Strasburg	Adams	245,944	101		102	101	4
Colorado		Trinidad	Las Animas	14,897	96		97	96	4
COLORADO		Total pop 2,889,735		2,776,530	98		98	97	
Conn	MSA	Hartford	Hartford	807,143	104	82	105	107	1
Conn	MSA	New Haven, Waterbury	New Haven	761,325	103	105	103	105	1
Conn	MSA	Norwich, New London	New London	238,409	95	82	97	99	3

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State		City or Urban Area	County	MSA or County 1980 Population	COST OF LIVING INDEX	AMENITY INDEX	EQUILIBRIUM WAGES	COST OF PUBLIC SERVICE	CLI & EW Estimation Accuracy
Conn	MSA	Stamford, Bdgeprt, Grnwch	Fairfield	807,143	104	124	103	105	3
Conn		Torrington	Litchfield	156,789	96		98	100	4
CONNECTICUT		Total pop 3,107,564		2,770,789	103		103	105	
Delaware		Dover	Kent	98,219	94		98	95	2
Delaware	MSA	Wilmington	New Castle	399,002	98	89	100	100	1
DELAWARE		Total pop 594,338		497,221	97		99	99	
DIST COL	MSA	Washington, D. C.	Dist Columbia	638,432	105	151	102	102	3
Florida		Cocoa	Brevard	272,959	92	70	94	95	3
Florida	MSA	Daytona Beach	Volusia	258,762	90	56	92	93	3
Florida	MSA	Fort Lauderdale	Broward	1,018,257	98	142	94	95	1
Florida	MSA	Fort Myers	Lee	250,288	90	62	92	93	3
Florida	MSA	Fort Pierce	Saint Lucie	151,196	91		94	94	4
Florida	MSA	Gainesville	Alachua	171,371	90	53	92	92	1
Florida	MSA	Jacksonville	Duval	722,252	88	48	93	92	3
Florida	MSA	Lakeland	Polk	321,652	90	46	93	94	1
Florida	MSA	Miami	Dade	1,625,611	99	113	98	99	1
Florida	MSA	Naples	Collier	85,791	90		93	93	4
Florida	MSA	Orlando	Orange	700,055	94	72	96	97	1
Florida	MSA	Panama City	Bay	97,740	87		89	90	4
Florida	MSA	Pensacola	Escambia	299,782	87	37	90	91	1
Florida		Saint Petersburg	Pinellas	728,409	90		93	93	4
Florida	MSA	Sarasota	Sarasota	202,251	93	124	91	92	1
Florida	MSA	Tallahassee	Leon	190,220	90	39	94	95	1
Florida	MSA	Tampa	Hillsborough	1,613,603	90	72	91	93	3
Florida	MSA	West Palm Beach	Palm Beach	576,758	101	102	101	103	1
FLORIDA		Total pop 9,747,063		9,286,935	93		94	95	
Georgia	MSA	Albany	Doughtery	112,402	88	29	92	91	1
Georgia	MSA	Athens	Clarke	130,015	91		96	97	2
Georgia	MSA	Atlanta	Fulton	2,138,231	96	33	100	101	1
Georgia	MSA	Augusta	Richmond	240,293	92	30	96	96	1
Georgia		Brunswick	Glynn	54,981	94		98	98	4
Georgia		Calhoun	Gordon	30,070	92		97	97	2
Georgia		Cartera	Murray	19,685	91		96	96	4
Georgia	MSA	Columbus	Muscogee	191,840	86	24	91	91	1
Georgia		Covington, New Born	Newton	34,849	93		98	98	4
Georgia		Dublin	Laurens	38,990	90		94	95	4
Georgia		Gainesville	Hall	75,649	85		89	90	4
Georgia		Griffin	Spalding	47,899	93		98	98	4
Georgia		Hogansville	Troup	50,003	93		98	98	4
Georgia		Jackson	Butts	3,665	93		98	98	4
Georgia	MSA	Macon	Bibb	283,591	91	33	96	97	1
Georgia		Milner	Lamar	12,215	89		94	94	4
Georgia		Newnan	Coweta	39,268	93		98	98	4

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State		City or Urban Area	County	MSA or County 1980 Population	COST OF LIVING INDEX	AMENITY INDEX	EQUILIBRIUM WAGES	COST OF PUBLIC SERVICE	CLI & EW Estimation Accuracy
Georgia		Rome	Floyd	79,800	96		101	101	2
Georgia	MSA	Savannah	Chatham	220,553	95	54	97	98	3
Georgia		Valdosta	Lowndes	67,972	83		87	88	4
Georgia		Waycross	Ware	371,180	84		89	89	4
Georgia		Zebulon	Pike	8,937	93		98	96	4
GEORGIA		Total pop 5,462,892		4,230,088	93		97	98	
HAWAII	MSA	Honolulu	Honolulu	762,874	121	334	107	110	3
		Total pop 964,691							
Idaho	MSA	Boise	Ada	173,125	100	74	102	100	1
Idaho		Idaho Falls	Bonneville	65,980	96		98	96	4
Idaho		Kellogg	Shoshone	19,226	101		103	101	4
Idaho		Lewiston	Nez Perce	33,220	100		102	100	4
Idaho		Pocatello	Bannock	65,421	97		98	97	4
Idaho		Twin Falls	Twin Falls	52,927	93		95	93	2
IDAHO		Total pop 944,127		409,899	98		100	98	
Illinois	MSA	Alton	Madison	268,229	100		103	103	4
Illinois	MSA	Aurora	Kane,	315,607	102	85	103	103	3
Illinois		Carbondale	Jackson	61,649	96		99	99	4
Illinois		Centralia	Marion	43,523	98		101	101	4
Illinois	MSA	Champaign	Champaign	168,392	98	50	101	101	1
Illinois	MSA	Chicago (2)	Cook	6,060,387	102	98	102	102	3
Illinois		Freeport	Stephenson	49,536	101		104	104	4
Illinois		Galesburg	Knox	61,607	101		104	104	4
Illinois		Glen Ellyn	Du Page	658,858	99		102	102	4
Illinois	MSA	Joliet	Will	355,042	103	60	105	105	3
Illinois	MSA	Kankakee	Kankakee	102,926	101		103	103	4
Illinois		Mattoon	Coles	52,992	97		100	100	4
Illinois		Olney	Richland	17,587	96		99	99	4
Illinois	MSA	Peoria	Peoria	365,864	100	45	103	103	1
Illinois		Quincy	Adams	71,622	92		94	95	2
Illinois	MSA	Rock Island, Moline	Rock Island	279,514	99	66	101	101	3
Illinois		Rockford	Winnebago	254,884	101	41	104	105	1
Illinois	MSA	Springfield	Sangamon	187,789	96	58	99	98	1
Illinois		Waukegon	Lake	440,388	102		104	104	4
ILLINOIS		Total pop 11,427,409		9,818,398	101		102	102	
Indiana	MSA	Bloomington	Monroe	119,149	96		100	100	2
Indiana	MSA	Evansville	Vanderburgh	235,403	96	42	100	99	3
Indiana	MSA	Fort Wayne	Allen	354,156	92	34	96	95	1
Indiana	MSA	Gary	Lake	642,781	97	38	101	100	3
Indiana		Greensburg	Henry	53,336	97		101	101	4
Indiana	MSA	Indianapolis	Marion	1,166,575	96	35	100	99	1
Indiana	MSA	Kokomo	Howard	103,715	94	42	97	97	3
Indiana	MSA	Lafayette	Tippecanoe	121,702	92	72	93	93	3

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State		City or Urban Area	County	MSA or County 1980 Population	COST OF LIVING INDEX	AMENITY INDEX	EQUILIBRIUM WAGES	COST OF PUBLIC SERVICE	CLI & EW Estimation Accuracy
Indiana	MSA	Muncie	Delaware	128,587	93	28	98	97	3
Indiana		New Albany	Floyd	61,205	94		97	97	4
Indiana		Richmond	Wayne	76,058	101		105	104	4
Indiana	MSA	South Bend	Saint Joseph	241,617	91	26	95	94	1
Indiana	MSA	Terre Haute	Vigo	137,247	98		102	101	4
INDIANA		Total pop 5,490,212		3,441,531	95		99	98	
Iowa		Burlington	Des Moines	46,775	97		99	98	4
Iowa	MSA	Cedar Rapids	Linn	169,775	94	63	96	96	1
Iowa		Council Bluffs	Pottawattamie	86,500	96		98	98	2
Iowa		Creston	Union	13,858	94		96	96	3
Iowa	MSA	Davenport	Scott	160,022	98	67	100	99	3
Iowa	MSA	Des Moines	Polk	367,561	94	63	96	95	1
Iowa	MSA	Dubuque	Dubuque	93,745	97	78	98	98	3
Iowa		Fort Dodge	Webster	45,953	94		96	95	2
Iowa		Marshalltown	Marshall	41,652	91		93	93	2
Iowa		Mason City	Cerro Gordo	46,458	93		95	95	2
Iowa		Ottumwa	Wapello	40,241	95		97	97	4
Iowa	MSA	Sioux City	Woodberry	100,884	92	45	96	95	1
Iowa		Spencer	Clay	19,576	90		92	92	4
Iowa	MSA	Waterloo	Black Hawk	162,781	95	59	98	98	1
IOWA		Total pop 2,913,387		1,397,781	95		97	97	
Kansas		Arkansas City	Cowley	36,824	88		92	92	4
Kansas		Atchison	Atchison	16,397	97		101	101	4
Kansas		Colby	Thomas	8,451	88		92	92	4
Kansas		Dodge City	Ford	24,315	85		86	89	4
Kansas		Emporia	Lyon	35,108	95		98	98	4
Kansas		Garden City	Finney	23,825	90		94	94	2
Kansas		Great Bend	Barton	31,343	88		91	90	2
Kansas		Hays	Ellis	26,098	89		93	93	4
Kansas		Independence	Montgomery	42,281	89		93	93	4
Kansas	MSA	Kansas City	Wyandotte	519,031	93	45	97	96	3
Kansas	MSA	Lawrence	Douglas	67,640	93	36	97	97	3
Kansas		Leavenworth	Leavenworth	54,809	97		101	101	4
Kansas		Liberal	Seward	17,071	94		98	97	2
Kansas		Louisburg	Miami	21,618	97		101	101	4
Kansas		Salina	Saline	48,905	88		92	91	2
Kansas	MSA	Topeka	Shawnee	154,198	93	45	96	96	3
Kansas	MSA	Wichita	Sedgwick	411,313	89	39	93	93	1
KANSAS		Total pop 2,364,236		1,641,225	92		95	95	
Kentucky		Ashland	Boyd	55,513	95		98	98	4
Kentucky		Bowling Green	Warren	71,826	91		95	94	2
Kentucky		Covington	Kenton	137,058	99		102	102	4
Kentucky		Elizabethtown	Hardin	68,917	87		90	89	4
Kentucky	MSA	Lexington	Fayette	317,629	93	61	95	95	1

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Kentucky	MSA	Louisville	Jefferson	779,406	91	45	94	94	1
Kentucky		Madisonville	Hopkins	46,174	89		92	91	3
Kentucky		Middlesboro	Bell	34,330	88		91	91	4
Kentucky	MSA	Owensboro	Daviess	85,949	92	47	95	95	1
Kentucky		Paducah	McCraken	61,310	93		96	96	4
Kentucky		Pikeaville	Pike	81,123	95		98	98	4
Kentucky		Somerset	Pulaski	45,803	87		90	90	2
KENTUCKY		Total pop 3,660,330		1,805,038	92		95	95	
Louisiana	MSA	Alexandria	Rapides	135,282	89	32	93	94	1
Louisiana	MSA	Baton Rouge	East Baton	494,151	87	64	89	90	1
Louisiana		Bogalusa	Washington	44,207	93		97	98	4
Louisiana		Gonzales	Ascension	50,068	91		94	95	4
Louisiana		Hammond	Tangipahoa	80,698	89		93	94	4
Louisiana	MSA	Houma	Terrebonne	176,876	91		94	95	4
Louisiana		Lafayette	Lafayette	190,231	93		97	97	2
Louisiana	MSA	Lake Charles	Calcasieu	167,223	93	61	98	98	1
Louisiana		Metairie, Gretna	Jefferson	454,592	92		96	97	4
Louisiana	MSA	Monroe	Ouachita	139,241	89	30	93	94	1
Louisiana		New Iberia	Iberia	63,752	91		95	96	4
Louisiana	MSA	New Orleans	rleans	1,256,256	92	145	90	91	1
Louisiana		Port Sulphur	Plaquemines	26,049	92		96	97	4
Louisiana		Reserve	St. John Baptist	31,924	92		96	97	4
Louisiana	MSA	Shreveport	Caddo	333,079	91	60	94	94	1
LOUISIANA		Total pop 4,206,116		3,643,629	91		92	93	
Maine		Augusta	Kennebec	109,889	93		96	96	4
Maine	MSA	Bangor	Penobscot	137,015	92	43	95	95	3
Maine		Machias	Washington	34,963	94		97	96	4
Maine	MSA	Portland	Cumberland	215,789	96	59	99	98	1
Maine		Presque Isle	Aroostook	91,344	93		96	96	4
MAINE		Total pop 1,125,043		589,000	94		97	96	
Maryland		Annapolis, Glen Burnie	Ann Arundel	370,775	99		101	100	4
Maryland	MSA	Baltimore	Independent City	2,199,531	103	134	101	101	1
Maryland		Cambridge	Dorchester	30,623	96		97	97	4
Maryland	MSA	Cumberland	Allegany	80,548	99		101	100	4
Maryland		Easton	Talbot	25,604	94		96	96	4
Maryland		Edgewood	Harford	145,930	100		102	101	4
Maryland	MSA	Hagerstown	Washington	113,086	96	67	98	98	3
Maryland		Randallstown, Reisterstwn	Baltimore	655,615	100		102	101	4
Maryland		Salisbury	Wicomico	845,540	96		97	97	4
Maryland		Silver Springs	Montgomery	579,053	99		101	101	4
MARYLAND		Total pop 4,216,941		4,846,305	100		101	100	
Mass	MSA	Boston, Lexington, Milton	Suffolk	2,805,911	110	101	110	112	3
Mass	MSA	Brockton	Plymouth	405,437	104	61	107	108	3

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Mass		Concord	Middlesex	205,055	111		114	115	4
Mass		Hyannis	Barnstable	147,928	105		108	109	4
Mass	MSA	Lowell	Middlesex	1,161,979	104		107	108	4
Mass		Lynn	Essex	424,544	111		114	115	4
Mass	MSA	New Bedford	Bristol	474,641	103		107	108	4
Mass		Norwood	Norfolk	606,587	111		114	115	4
Mass	MSA	Pittsfield	Berkshire	145,110	98		101	102	4
Mass	MSA	Salem	Essex	258,175	103		106	107	4
Mass	MSA	Springfield	Hampden	515,259	96	40	100	101	3
Mass	MSA	Worcester, Ftchbrg, Wbstr	Worcester	646,352	104		107	108	2
MASSACHUSETTS		Total pop 5,737093		7,796,978	107		109	110	
Michigan		Alpena	Alpena	32,315	98		101	101	4
Michigan	MSA	Ann Arbor	Washtenaw	264,740	107		112	111	4
Michigan		Charlotte	Eaton	88,337	96	38	100	99	3
Michigan		Clinton, Adrian	Lenawee	89,948	107		112	111	4
Michigan	MSA	Detroit	Wayne	4,488,072	110	44	113	112	3
Michigan	MSA	Flint, Fenton, Goodrich	Genesee	450,449	104	28	108	107	3
Michigan	MSA	Grand Rapids	Kent	601,680	98	39	102	101	3
Michigan		Hamburg	Livingston	100,289	107		112	111	4
Michigan		Imlay City, Hadley	Lapeer	70,038	104		108	107	4
Michigan		Ironwood	Gogebic	19,686	95		99	98	4
Michigan	MSA	Kalamazoo	Kalamazoo	212,378	101	33	105	105	1
Michigan	MSA	Lansing	Ingham	419,750	104	47	107	106	1
Michigan		Marquette	Marquette	74,101	98		102	101	2
Michigan	MSA	Muskegon	Muskegon	157,589	97		100	100	4
Michigan		Petersburg, Luna Pier	Monroe	134,659	107		112	111	4
Michigan		Petosky	Emmet	22,992	96		100	99	4
Michigan		Port Huron	Saint Clair	138,802	101		105	105	4
Michigan		Portland	Ionn	51,815	101		105	104	4
Michigan		Saint Johns	Clinton	55,893	101		105	104	4
Michigan		Sault Sainte Marie	Chippewa	29,029	97		100	100	4
Michigan		Stockbridge	Ingham	272,437	101		105	104	4
Michigan		Traverse City	Grand	54,899	102		105	108	2
MICHIGAN		Total pop 9,262,044		7,829,898	106		110	109	
Minnesota		Brainerd	Crow Wing	41,722	97		99	99	4
Minnesota		Chanhassen	Carver	37,046	105		107	107	4
Minnesota	MSA	Duluth, Virginia	St. Louis	222,229	97	45	100	101	3
Minnesota		Hutchinson	McLeod	29,657	105		107	107	4
Minnesota		Mankato	Blue Earth	52,314	95		98	98	4
Minnesota	MSA	Minneapolis	Hennipin	2,093,261	102	98	103	103	3
Minnesota		Montevideo	Chippewa	14,941	92		94	95	4
Minnesota		Northfield	Rice	46,087	105		107	107	4
Minnesota		Owatonna	Steele	30,328	99		102	102	4
Minnesota		Princeton	Mille Lacs	18,430	99		101	102	4
Minnesota	MSA	Rochester	Olmsted	92,006	98	91	98	99	3

Table 1. Cost of Living, Value of Amenities, Equilibrium Wages, and Cost of Public Services, by City and State, 1985-87.
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Estimation accuracy 1-4, high to low.
CPS = .84 x EW + .09 x consumption + .05 x utilities + .02 x 100

State		City or Urban Area	County	MSA or County 1980 Population	COST OF LIVING INDEX	AMENITY INDEX	EQUILIBRIUM WAGES	COST OF PUBLIC SERVICE	CLI & EW Estimation Accuracy
Minnesota	MSA	Saint Cloud, Kimball Pra	Sterns	163,256	98	58	101	101	1
Minnesota		Saint Paul	Ramsey	459,784	103		106	106	2
Minnesota		Winona	Winona	46,256	99		102	102	4
Minnesota		Winthrop	Sibley	15,488	95		98	98	4
MINNESOTA		Total pop 4,075,970		3,362,605	101		103	103	
Miss		Clarksdale	Coahoma	36,918	87		91	91	4
Miss		Columbus	Lowndes	57,304	84		88	88	4
Miss		Greenville	Washington	72,344	87		91	91	4
Miss		Greenwood	Leflore	41,525	84		87	88	4
Miss		Gulfport	Harrison	157,665	91	36	95	95	1
Miss		Hattiesburg	Forrest	66,018	92		96	96	4
Miss	MSA	Jackson	Hinds	362,038	89	42	93	93	3
Miss		Meridian	Lauderdale	77,285	84		88	88	4
Miss		Natchez	Adams	36,071	84		88	88	4
Miss		Tupelo	Lee	57,061	88		92	92	4
MISSISSIPPI		Total pop 2,520,698		906,229	88		92	92	
Missouri		Cape Giradeau	Cape Giradeau	58,837	93		97	96	4
Missouri		Chillicothe	Livingston	15,739	92		96	95	4
Missouri		Clinton	Henry	19,672	92		96	96	2
Missouri	MSA	Columbia	Boone	100,376	90	37	93	92	1
Missouri		Farmington, Bismark	Saint Francois	42,600	98		102	101	4
Missouri		Hannibal	Marion	28,638	95		99	98	4
Missouri		Hermann, Owensville	Gasconade	13,181	94		98	97	4
Missouri		Jefferson City	Cole	56,663	85		89	89	2
Missouri	MSA	Joplin	Jasper	127,513	87	26	92	91	1
Missouri	MSA	Kansas City, Independence	Jackson	914,437	94	44	97	96	1
Missouri		Kirksville	Adair	24,870	87		91	91	2
Missouri		Montgomery City, Mgh Hill	Montgomery	11,537	94		98	97	4
Missouri		New Hartford	Pike	17,568	95		100	98	4
Missouri		Platteburg	Clinton	15,916	96		101	99	4
Missouri		Poplar Bluff	Butler	37,693	91		95	94	2
Missouri		Potasi	Washington	17,983	95		100	98	4
Missouri		Rolla	Phelps	33,633	95		100	98	4
Missouri	MSA	Saint Joseph	Buchanan	87,888	87	37	91	90	1
Missouri	MSA	Saint Louis	Independent City	1,788,483	94	49	97	97	1
Missouri	MSA	Springfield	Greene	187,789	90	30	94	93	1
Missouri		Sullivan, Gerald	Franklin	71,233	95		100	98	4
Missouri		Warrensburg	Johnson	39,059	96		101	99	4
Missouri		West Plains	Howell	26,807	80		83	83	4
MISSOURI		Total pop 4,916,765		3,740,118	93		96	96	
Montana	MSA	Billings	Yellowstone	108,035	98	85	99	98	1
Montana		Butte	Silver Bow	38,092	95		96	96	4
Montana	MSA	Great Falls	Cascade	80,696	97	71	98	97	1
Montana		Havre	Hill	17,985	98		99	98	2

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State		City or Urban Area	County	MSA or County 1980 Population	COST OF LIVING INDEX	AMENITY INDEX	EQUILIBRIUM WAGES	COST OF PUBLIC SERVICE	CLI & EW Estimation Accuracy
Montana		Helena	Lewis and Clark	43,039	95		96	96	4
Montana		Kalispell	Flathead	51,966	96		97	97	4
Montana		Miles City	Custer	13,109	96		97	96	4
Montana		Missoula	Missoula	76,016	95		96	95	2
MONTANA		Total pop 786,690		428,938	96		97	97	
Nebraska		Columbus	Platte	28,652	90		92	92	4
Nebraska		Grand Island	Hall	47,690	87		89	88	4
Nebraska		Kearney	Buffalo	34,797	87		89	88	2
Nebraska	MSA	Lincoln	Lancaster	192,884	91	69	93	92	1
Nebraska		Norfolk	Madison	31,382	91		94	93	4
Nebraska		North Platte	Lincoln	36,455	90		92	92	4
Nebraska	MSA	Omaha	Douglas	499,407	92	48	95	94	1
Nebraska		Scotts Bluff	Scotts Bluff	38,344	88		90	90	4
NEBRASKA		Total pop 1,569,825		909,811	91		93	93	
Nevada		Elko	Elko	17,269	103		100	100	4
Nevada	MSA	Las Vegas	Clark	463,087	98	119	97	97	1
Nevada	MSA	Reno	Washoe	193,623	103	169	99	100	1
NEVADA		Total pop 800,508		673,979	100		98	98	
New Hamp		Claremont	Sullivan	36,063	93		96	98	4
New Hamp	MSA	Manchester	Hillsboro	276,608	99	93	100	102	3
New Hamp	MSA	Portsmouth	Rockingham	190,345	95	51	98	100	3
NEW HAMPSHIRE		Total pop 920,610		503,016	97		99	101	
New Jersey		Asbury Park	Monmouth	503,173	102	69	104	105	3
New Jersey	MSA	Atlantic City	Atlantic	276,835	102	51	105	107	3
New Jersey		Bridgeton	Cumberland	132,866	104	33	108	109	3
New Jersey		Camden, Cherry Hill	Camden	471,650	99		99	101	4
New Jersey		Flemington	Hunterdon	87,361	99		99	101	4
New Jersey		Hackensack	Bergen	845,385	100		99	102	4
New Jersey	MSA	Jersey City	Hudson	556,972	117	139	115	116	3
New Jersey		Morristown	Morris	407,630	100		100	102	4
New Jersey		New Brunswick, East Brnwk	Middlesex	595,893	109	146	106	108	3
New Jersey	MSA	Newark, Orange	Essex	1,878,959	113	110	113	114	1
New Jersey		Paterson	Passaic	447,585	106	102	106	108	3
New Jersey		Phillipsburg	Warren	84,429	101		101	103	4
New Jersey		Toms River	Ocean	346,038	100		100	102	4
New Jersey	MSA	Trenton	Mercer	307,863	106	101	106	107	3
New Jersey		Wildwood	Cape May	82,266	104		104	106	4
NEW JERSEY		Total pop 7,365,011		7,024,905	106		106	108	
New Mexico	MSA	Albuquerque	Bernalilo	420,261	94	101	94	93	1
New Mexico		Clovis	Curry	42,019	94		95	95	2
New Mexico		Farmington	San Juan	80,833	95		96	96	4
New Mexico		Gallup	McKinley	56,536	93		95	94	4

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State		City or Urban Area	County	MSA or County 1980 Population	COST OF LIVING INDEX	AMENITY INDEX	EQUILIBRIUM WAGES	COST OF PUBLIC SERVICE	CLI & EW Estimation Accuracy
New Mexico		Hobbs	na	55,634	95		96	96	4
New Mexico	MSA	Las Cruces	Dona Ana	96,340	91	81	92	92	3
New Mexico		Roswell	Chaves	51,103	89		91	90	2
New Mexico	MSA	Santa Fe	Santa Fe	75,519	92		94	93	4
NEW MEXICO		Total pop 1,303,302		676,245	93		94	93	
New York	MSA	Albany	Albany	835,800	101	40	105	105	1
New York	MSA	Binghamton	Broome	283,460	98	49	101	102	1
New York	MSA	Buffalo	Erie	1,015,472	101	40	104	104	1
New York	MSA	Elmira	Chemung	97,656	98		102	103	2
New York	MSA	Glen Falls	Warren	109,649	96		100	100	2
New York		Jamestown	Chautaugua	146,925	98		102	102	4
New York		Kingston	Ulster	158,158	100		103	104	4
New York	MSA	Nassau	Rensselaer	2,605,813	109	61	111	112	3
New York	MSA	New York	Manhatten	8,274,961	124	169	120	124	1
New York		Plattsburgh	Clinton	80,750	95		98	99	4
New York		Potsdam	Saint Lawrence	114,347	98		102	102	4
New York	MSA	Poughkeepsie	Dutchess	245,055	101	44	105	105	3
New York	MSA	Rochester	Monroe	971,230	99	44	103	103	3
New York		Schenectady	Schenectady	149,946	100		103	104	2
New York	MSA	Syracuse	Onondaga	642,971	99	45	102	103	1
New York	MSA	Utica	Oneida	320,180	98		101	102	4
New York		Watertown	Jefferson	88,151	98		102	102	4
New York		White Plains, Rye	Westchester	866,599	110		113	113	4
NEW YORK		Total pop 17,558,165		16,987,123	114		113	115	
North Car	MSA	Asheville	Buncombe	160,934	83	31	87	87	1
North Car	MSA	Charlotte	Mecklenberg	864,727	94		98	98	2
North Car	MSA	Fayetteville	Cumberland	247,160	88		92	92	4
North Car		Goldsboro	Wayne	97,054	84		88	88	4
North Car	MSA	Greensboro	Guilford	851,851	89	31	93	93	1
North Car		Lenoir	Caldwell	67,746	85		89	89	4
North Car		New Bern	Craven	71,074	86		90	90	4
North Car	MSA	Raleigh	Wake	561,222	91	43	94	94	1
North Car		Rocky Mount	Edgecombe	55,988	90		94	94	2
North Car	MSA	Wilmington	New Hanover	103,471	89	34	93	92	1
North Car		Winston-Salem	Forsyth	243,704	91		95	95	2
NORTH CAROLINA		Total pop 5,880,965		3,324,931	90		94	94	
North Dak	MSA	Bismark	Burleigh	79,988	96	90	96	98	3
North Dak		Devils Lake	Ramsey	13,048	91		92	93	4
North Dak	MSA	Fargo	Cass	88,247	92	70	94	95	3
North Dak	MSA	Grand Forks	Grand Forks	66,100	95	75	97	98	1
North Dak		Jamestown	Stutsman	24,154	88		89	91	4
North Dak		Minot	Ward	58,392	92		94	95	4
North Dak		Williston	Williams	22,237	88		89	91	4
NORTH DAKOTA		Total pop 652,717		352,166	93		94	95	

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State		City or Urban Area	County	MSA or County 1980 Population	COST OF LIVING INDEX	AMENITY INDEX	EQUILIBRIUM WAGES	COST OF PUBLIC SERVICE	CLI & EW Estimation Accuracy
Ohio	MSA	Akron	Summit	660,328	96	49	99	99	1
Ohio		Athens	Athens	56,399	95		98	98	4
Ohio	MSA	Canton	Stark	404,421	87	40	90	90	1
Ohio	MSA	Cincinnati	Hamilton	1,100,962	96	56	98	99	1
Ohio	MSA	Cleveland, North Olmsted	Cuyahoga	1,898,825	99	74	101	101	1
Ohio	MSA	Columbus	Franklin	1,243,833	99	61	101	102	1
Ohio	MSA	Dayton, Brokvile, Grantwn	Montgomery	942,083	96	45	99	99	1
Ohio		Decatur	Brown	31,920	97	45	100	100	3
Ohio		Eaton	Preble	38,223	96		99	99	4
Ohio	MSA	Elyria	Lorain	274,909	100	68	102	102	3
Ohio		Lewisburg	Logan	39,155	100		103	103	4
Ohio	MSA	Lima	Allen	154,795	92	48	98	98	1
Ohio	MSA	Mansfield	Richland	131,205	93	30	98	98	3
Ohio		Niles, Cortland, Minrl Rg	Trumbull	241,863	101		104	104	4
Ohio		Painesville	Lake	212,801	103		107	106	4
Ohio		Polk	Ashland	46,178	99		102	102	4
Ohio		Portsmouth	Scioto	84,545	99		102	102	4
Ohio		Sandusky	Erie	79,655	101		105	104	4
Ohio		Spring Valley, Xenia	Greene	129,769	99		102	102	4
Ohio	MSA	Steubenville	Jefferson	91,564	97		101	101	4
Ohio	MSA	Toledo	Lucas	616,864	98	53	100	100	3
Ohio	MSA	Youngstown	Mahoning	531,350	90	33	94	95	1
Ohio		Zanesville	Muskingum	83,340	96		99	99	4
OHIO		Total pop 10,797603		9,094,987	97		100	100	
Oklahoma		Ardmore	Carter	43,610	93		96	96	4
Oklahoma		Bartlesville	Washington	48,113	94		97	97	4
Oklahoma		Clinton	Custer	25,995	95		98	98	4
Oklahoma	MSA	Enid	Garfield	62,820	90	36	94	94	3
Oklahoma		Hugo	Choctaw	17,203	87		90	90	4
Oklahoma	MSA	Lawton	Comanchi	112,456	90	41	93	93	3
Oklahoma		McAlester	Pittsburg	40,524	97		100	100	2
Oklahoma		Muskogee	Muskogee	67,033	93		96	96	4
Oklahoma	MSA	Oklahoma City	Oklahoma	860,969	92	65	94	95	1
Oklahoma		Stillwater	Payne	62,435	94		97	97	4
Oklahoma	MSA	Tulsa	Tulsa	657,173	96	73	97	97	1
OKLAHOMA		Total pop 3,025,487		1,998,331	93		95	96	
Oregon		Astoria	Clatsop	32,489	102		104	102	4
Oregon		Bend	Deschutes	62,142	103		104	103	4
Oregon	MSA	Eugene	Lane	275,226	106	106	106	104	3
Oregon	MSA	Medford	Jackson	132,456	100		101	100	2
Oregon		Pendelton	Umatilla	58,861	101		102	100	4
Oregon	MSA	Portland	Multanomah	1,105,699	108	121	107	105	1
Oregon	MSA	Salem	Marion	249,695	102	84	103	102	1
Oregon		The Dalles	Wasco	21,732	102		103	102	4

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State		City or Urban Area	County	MSA or County 1980 Population	COST OF LIVING INDEX	AMENITY INDEX	EQUILIBRIUM WAGES	COST OF PUBLIC SERVICE	CLI & EW Estimation Accuracy
OREGON		Total pop 2,633,156		1,938,500	106		106	104	
Penn	MSA	Allentown	Lehigh	552,280	104	112	103	104	3
Penn	MSA	Altoona	Blair	136,621	94		97	97	2
Penn		Camp Hill	Cumberland	179,625	95		98	99	4
Penn		Dayton, Sagamore	Armstrong	77,766	100		102	103	4
Penn		DuBois	Clearfield	83,578	98		100	101	4
Penn	MSA	Erie, Waterford	Erie	279,780	97	57	100	100	1
Penn		Greensburg, Murrysville	Westmoreland	392,184	103		106	106	4
Penn	MSA	Harrisburg, Middletown	Dauphin	555,158	99	62	102	102	1
Penn		Indiana	Indiana	92,281	100		102	103	4
Penn	MSA	Johnstown	Cambria	264,506	100		102	103	4
Penn	MSA	Lancaster, Bart, Adamstwn	Lancaster	362,346	98	63	100	101	1
Penn		Levittown	Bucks	479,180	107		110	110	4
Penn		New Castle, Ellwood City	Lawrence	107,150	102		105	105	4
Penn	MSA	Philadelphia	Philadelphia	3,682,450	113	81	114	116	1
Penn	MSA	Pittsburgh	Allegheny	2,218,870	98	76	100	99	1
Penn		Pottstown	Montgomery	643,371	107		110	110	4
Penn	MSA	Reading	Berks	312,509	102	56	104	106	1
Penn	MSA	Scranton	Lackawanna	728,790	96	51	99	100	3
Penn		Somerset, Jnrstwn, Ursina	Somerset	81,243	100		102	103	4
Penn		Washington	Washington	217,074	99		101	102	4
Penn		West Chester, Coatsvle	Chester	316,660	107		110	110	4
Penn		Wilkes-Barre	Luzerne	343,079	92		94	95	2
Penn	MSA	Williamsport	Lycoming	118,416	96		99	100	4
PENNSYLVANIA		Total pop 11,864,720		12,224,919	104		106	107	
RHODE IS	MSA	Providence Total pop 947,154	Providence	618,514	103	70	105	106	1
South Car	MSA	Anderson	Anderson	133,236	93	80	94	95	3
South Car		Beaufort	Beaufort	65,365	92		96	96	4
South Car	MSA	Charleston	Charleston	430,462	89	45	93	93	3
South Car	MSA	Columbia	Richland	410,088	94	34	98	99	1
South Car	MSA	Florence	Florence	110,163	90	38	93	93	1
South Car	MSA	Greenville	Greenville	569,066	89	25	94	94	1
South Car		Greenwood	Greenwood	57,847	91		94	94	4
South Car		Myrtle Beach	Horry	101,419	91		95	95	2
South Car		Orangeburg	Orangeburg	82,276	90		94	94	4
SOUTH CAROLINA		Total pop 3,122,717		1,959,921	91		95	95	
South Dak		Aberdeen	Brown	36,962	91		94	96	2
South Dak		Chamberlain	Brule	5,246	90		93	94	4
South Dak		Huron	Beadle	19,195	91		93	94	4
South Dak		Pierre	Hughes	14,220	88		90	92	4
South Dak	MSA	Rapid City	Pennington	70,133	91	61	94	94	1
South Dak	MSA	Sioux Falls	Minnehaha	109,435	93	57	96	97	3

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State		City or Urban Area	County	MSA or County 1980 Population	COST OF LIVING INDEX	AMENITY INDEX	EQUILIBRIUM WAGES	COST OF PUBLIC SERVICE	CLI & EW Estimation Accuracy
South Dak		Watertown	Codington	20,885	89		91	92	4
South Dak		Yankton	Yankton	18,952	89		92	93	4
SOUTH DAKOTA		Total pop 690,768		295,027	91		94	95	
Tennessee	MSA	Chattanooga	Hamilton	320,761	85	17	90	90	1
Tennessee	MSA	Clarksville	Montgomery	83,342	87	26	91	91	3
Tennessee		Columbia	Maury	51,095	83		88	88	4
Tennessee		Cookeville	Putnam	47,601	85		90	90	2
Tennessee		Jackson	Madison	74,546	89		94	93	2
Tennessee	MSA	Johnson City	Washington	343,041	88	24	92	92	3
Tennessee		Kingsport	Sullivan	143,968	92		96	96	2
Tennessee	MSA	Knoxville	Knox	565,970	90	26	94	94	1
Tennessee	MSA	Memphis	Shelby	809,860	91	47	94	94	1
Tennessee	MSA	Nashville	Davidson	850,505	89	38	93	94	1
Tennessee		Union City	Obion	32,781	87		92	91	4
TENNESSEE		Total pop 4,591,120		3,323,470	89		93	93	
Texas	MSA	Abilene	Taylor	110,932	90	40	93	93	1
Texas	MSA	Amarillo	Potter	173,699	88	30	93	92	1
Texas	MSA	Austin	Travis	536,688	95	90	95	95	1
Texas	MSA	Beaumont	Jefferson	375,497	92	34	96	96	3
Texas		Bridgeport	Wise	26,525	93		97	97	4
Texas	MSA	Brownsville, Harlingen	Cameron	209,680	86	43	90	90	1
Texas		Cleburne	Johnson	67,649	93		97	97	4
Texas	MSA	Corpus Christi	Nueces	326,228	92	74	94	94	3
Texas	MSA	Dallas	Dallas	1,957,378	98	77	99	99	1
Texas		Dawson	Navarro	35,323	87		90	90	4
Texas		Del Rio	Val Verde	35,910	80		84	84	4
Texas	MSA	El Paso	El Paso	479,899	91	55	94	93	1
Texas		Gainesville	Cooke	27,656	88		91	91	4
Texas		Granbury	Hood	17,714	93		97	97	4
Texas		Hillsboro	Hill	25,024	87		90	90	4
Texas		Honey Grove	Fannin	24,285	88		91	91	4
Texas	MSA	Houston	Harris	2,735,766	97	84	98	99	1
Texas	MSA	Lubbock	Lubbock	211,651	90	39	94	93	1
Texas		Nacogdoches	Nacogdoches	46,786	90		94	94	2
Texas	MSA	Odessa	Ector	115,374	91	41	95	94	1
Texas		Pampa	Gray	26,386	90		93	93	4
Texas	MSA	San Angelo	Tom Greene	84,784	88	54	90	90	3
Texas	MSA	San Antonio	Bexar	1,071,954	91	49	94	95	1
Texas	MSA	Sherman	Grayson	89,796	91	41	95	95	1
Texas	MSA	Texarkana	Bowie	75,301	87	34	91	91	1
Texas	MSA	Tyler	Smith	128,366	90	36	94	94	1
Texas	MSA	Waco	McLennan	170,755	87	29	91	91	1
Texas		White Settlement	Tarran	860,880	91		95	95	2
Texas		Whitney	Hill	25,024	87		90	90	4
Texas	MSA	Wichita Falls	Wichita	121,082	94	33	98	99	1

Table 1. Cost of Living, Value of Amenities, Equilibrium Wages, and Cost of Public Services, by City and State, 1985-87.
All indexes are based on a U.S. population weighted average = 100
There is some area and population overlap.
Estimation accuracy 1-4, high to low.
CPS = .84 x EW + .09 x consumption + .05 x utilities + .02 x 100

State		City or Urban Area	County	MSA or County 1980 Population	COST OF LIVING INDEX	AMENITY INDEX	EQUILIBRIUM WAGES	COST OF PUBLIC SERVICE	CLI & EW Estimation Accuracy
TEXAS		**Total pop 14,227,799**		**10,193,992**	**94**		**96**	**96**	
Utah		Cedar City	Iron	17,349	96		96	96	4
Utah		Ogden	Weber	144,616	98		98	97	3
Utah	MSA	Provo	Utah	218,106	94	93	94	94	1
Utah	MSA	Salt Lake City	Salt Lake	910,222	97	97	97	96	1
UTAH		**Total pop 1,461,037**		**1,290,293**	**96**		**97**	**96**	
Vermont	MSA	Burlington	Chittenden	115,308	97		100	101	4
Vermont		Montpelier	Washington	52,393	99		102	104	2
Vermont		Rutland	Rutland	58,347	94		96	98	4
Vermont		Saint Johnsbury	Caledonia	25,808	90		93	95	4
VERMONT		**Total pop 511,456**		**251,856**	**96**		**99**	**100**	
Virginia	MSA	Charlottesville	Indep City	113,568	100		105	104	4
Virginia	MSA	Lynchburg	Indep City	141,289	89	26	93	92	3
Virginia	MSA	Norfolk	Indep City	1,160,311	94	80	95	95	3
Virginia	MSA	Richmond	Indep City	761,311	93	43	96	96	1
Virginia	MSA	Roanoke	Indep City	220,393	90	40	94	93	1
Virginia		Suffolk	Indep City	47,621	93		98	97	4
Virginia		Warrenton	Fauquier	37,869	96		101	100	4
Virginia		Winchester	Indep City	20,217	97		101	100	4
VIRGINIA		**Total pop 5,346,797**		**2,502,599**	**93**		**96**	**95**	
Washington		Aberdeen	Grays Harbor	66,314	101		102	101	4
Washington	MSA	Bellingham	Whatcom	106,701	98		99	98	4
Washington	MSA	Bremerton	Kitsap	147,152	97	80	98	97	3
Washington		Everett, Index	Snohomish	337,016	100		102	100	4
Washington		Pasco	Franklin	35,025	98		99	98	4
Washington	MSA	Richland	Benton	144,469	93	58	96	95	1
Washington	MSA	Seattle, Baring, Renton	King	1,607,469	103	135	101	99	1
Washington	MSA	Spokane	Spokane	341,835	93	64	95	94	1
Washington	MSA	Tacoma	Pierce	485,667	97	78	99	97	1
Washington	MSA	Vancouver	Clark	192,227	99		100	99	4
Washington		Wenatchee	Chelan	45,061	97		98	97	2
Washington	MSA	Yakima	Yakima	172,508	94	77	96	96	1
WASHINGTON		**Total pop 4,132353**		**3,661,444**	**99**		**99**	**98**	
West Vir		Beckley	Raleigh	86,821	98		101	101	4
West Vir		Bluefield	Mercer	73,870	92		94	95	4
West Vir	MSA	Charleston	Kanawha	269,595	94	62	97	96	1
West Vir		Clarksburg	Harrison	77,710	97		99	99	4
West Vir		Fairmont	Marion	65,789	97		99	99	4
West Vir	MSA	Huntington	Cabell	152,856	95	52	98	98	1
West Vir	MSA	Parkersburg	Wood	93,627	95	59	98	98	3
WEST VIRGINIA		**Total pop 1,950,186**		**820,268**	**95**		**98**	**98**	

Table 1. Cost of Living, Value of Amenities, Equilibrium Wages, and Cost of Public Services, by City and State, 1985-87.
All indexes are based on a U.S. population weighted average = 100
There is some area and population overlap.
Estimation accuracy 1-4, high to low.
CPS = .84 x EW + .09 x consumption + .05 x utilities + .02 x 100

State		City or Urban Area	County	MSA or County 1980 Population	COST OF LIVING INDEX	AMENITY INDEX	EQUILIBRIUM WAGES	COST OF PUBLIC SERVICE	CLI & EW Estimation Accuracy
Wisconsin	MSA	Eau Claire	Eau Claire	130,932	97		99	98	4
Wisconsin		Fond Du Lac	Fond Du Lac	89,952	95		97	96	2
Wisconsin	MSA	Green Bay	Brown	175,280	95	62	97	97	1
Wisconsin	MSA	Janesville	Rock	139,420	89	35	93	92	1
Wisconsin	MSA	La Crosse	La Crosse	91,056	95		97	96	2
Wisconsin	MSA	Madison	Dane	323,545	100	86	100	100	3
Wisconsin		Marinette	Marinette	39,314	95		97	97	2
Wisconsin	MSA	Milwaukee	Milwaukee	1,397,143	105	92	106	105	3
Wisconsin		Rhinelander	Oneida	31,216	98		101	100	4
Wisconsin		Rice Lake	Barron	38,730	97		99	98	4
Wisconsin	MSA	Sheboygan	Sheboygan	100,935	95		97	97	4
Wisconsin	MSA	Wausau	Marathon	111,270	92		95	95	2
WISCONSIN		Total pop 4,705,642		2,668,793	101		102	101	
Wyoming	MSA	Casper	Natrona	71,856	92	97	93	93	1
Wyoming	MSA	Cheyenne	Laramie	68,649	99		99	99	2
Wyoming		Gillette	Campbell	24,367	98		99	99	2
Wyoming		Rock Spring	Sweetwater	41,723	96		97	97	4
Wyoming		Sheridan	Sheridan	25,048	96		96	96	4
Wyoming		Thermopolis	Hot Springs	5,710	98		96	96	4
WYOMING		Total pop 469,557		237,353	96		96	96	

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Table 2. Consumption, State Income Tax Rate, Cost of Living, Value of Amenities, and Equilibrium Wages by City, 1985-87.

All indexes are based on a U.S. population weighted average = 100.

State		City or Urban Area	County	MSA or County Population	COST OF CONSUMPTION INDEX	STATE INCOME TAX RATE	COST OF LIVING INDEX	VALUE OF AMENITIES Site Index	% Adjustment Actual	% Adjustment Est	EQUILIBRIUM WAGES (CLI x % Adj)
Alabama	MSA	Anniston, Bynum	Calhoun	119,761	85	2.4%	87	21	105.4%		92
Alabama		Ashland	Clay	13,703	88	2.4%	90			104.7%	94
Alabama	MSA	Birmingham	Jefferson	883,946	90	2.4%	92	33	104.4%		96
Alabama		Brent	Bibb	15,723	88	2.4%	90			104.7%	94
Alabama	MSA	Dothan	Houston	122,453	91	2.4%	92			104.7%	96
Alabama	MSA	Florence	Lauderdale	135,065	84	2.4%	86	29	105.0%		91
Alabama	MSA	Gadsden	Etowah	103,057	85	2.4%	87	28	104.9%		92
Alabama	MSA	Huntsville	Madison	196,966	89	2.4%	90	29	104.7%		94
Alabama	MSA	Mobile	Mobile	443,536	91	2.4%	92	34	104.3%		96
Alabama	MSA	Montgomery	Montgomery	272,687	89	2.4%	90	41	103.9%		94
Alabama		Munford	Talladega	73,826	88	2.4%	90			104.7%	94
Alabama		Selma	Dallas	26,684	89	2.4%	90			104.7%	94
Alabama	MSA	Tuscaloosa	Tuscaloosa	137,541	85	2.4%	87	28	105.0%		92
Alaska	MSA	Anchorage	Anchorage	174,431	138	0.0%	128	287	91.2%		116
Alaska		Fairbanks	Fairbanks	22,645	138	0.0%	127			91.2%	116
Alaska		Juneau	Juneau	19,528	137	0.0%	127			91.2%	116
Arizona		Casa Grande	Pinal	90,918	95	1.7%	94			101.2%	96
Arizona		Douglas	Cochise	80,717	95	1.7%	95			101.2%	96
Arizona		Flagstaff	Coconino	74,947	102	1.7%	100			101.2%	101
Arizona		Kingman	Mohave	55,693	89	1.7%	90			101.2%	91
Arizona	MSA	Phoenix	Maricopa	1,509,052	99	1.7%	98	95	100.3%		98
Arizona		Prescott	Yavapai	68,145	101	1.7%	99			101.2%	101
Arizona	MSA	Tucson	Pima	531,443	92	1.7%	92	81	101.3%		93
Arizona		Yuma	Yuma	90,554	103	1.7%	101			101.2%	102
Arkansas		Batesville	Independence	30,147	78	1.8%	81			104.3%	84
Arkansas		Blytheville	Mississippi	59,517	87	1.8%	88			104.3%	92
Arkansas		El Dorado	Union	49,988	89	1.8%	89			104.3%	93
Arkansas	MSA	Fayetteville	Washington	100,494	86	1.8%	87	33	104.6%		91
Arkansas		Forest City	St. Francis	30,858	87	1.8%	88			104.3%	92
Arkansas	MSA	Fort Smith	Sebastian	131,822	87	1.8%	88	25	104.4%		92
Arkansas		Hot Springs	Garland	69,916	88	1.8%	89			104.3%	93
Arkansas		Jonesboro	Craighead	63,916	87	1.8%	88			104.3%	92
Arkansas	MSA	Little Rock	Pulaski	474,484	91	1.8%	92	41	103.9%		96
Arkansas	MSA	Pine Bluff	Jefferson	90,718	87	1.8%	88	36	104.4%		92
Calif	MSA	Bakersfield	Kern	403,089	102	1.3%	100	103	99.8%		100
Calif		Bishop	Inyo	17,895	110	1.3%	106			97.8%	104
Calif	MSA	Chico	Butte	143,851	105	1.3%	103	108	99.8%		102
Calif		Eureka	Humboldt	108,525	108	1.3%	105			97.8%	103
Calif		Fairfield, Vacavle, Elmra	Solano	235,203	112	1.3%	108	176	98.8%		106

Table 2. Consumption, State Income Tax Rate, Cost of Living, Value of Amenities, and Equilibrium Wages by City, 1985-87.

All indexes are based on a U.S. population weighted average = 100.

State		City or Urban Area	County	MSA or County Population	COST OF CONSUMPTION INDEX	STATE INCOME TAX RATE	COST OF LIVING INDEX	VALUE OF AMENITIES Site Index	% Adjustment Actual	% Adjustment Est	EQUILIBRIUM WAGES (CLI x % Adj)
Calif	MSA	Fresno	Fresno	515,013	106	1.3%	103	129	98.3%		101
Calif	MSA	Los Angeles (1)	Los Angeles	7,477,421	111	1.3%	107	239	92.3%		99
Calif		Marysville	Yuba	49,733	109	1.3%	106			97.5%	103
Calif		Monterey	Monterey	290,444	113	1.3%	109			97.5%	106
Calif	MSA	Oakland, Newark	Alameda	1,761,751	121	1.3%	115	280	91.7%		106
Calif		Pacifica, El Granada	San Mateo	588,184	116	1.3%	112			97.5%	109
Calif		Palm Springs	Riverside	663,199	105	1.3%	102			97.5%	100
Calif		Placerville	El Dorado	85,812	109	1.3%	106			97.5%	103
Calif	MSA	Redding	Shasta	155,613	105	1.3%	102	96	100.2%		102
Calif		Redwood City, San Bruno	San Mateo	588,184	114	1.3%	110			97.5%	107
Calif	MSA	Sacramento	Sacramento	1,099,814	106	1.3%	103	133	98.2%		101
Calif		Saint Helena, Rutherford	Napa	99,199	112	1.3%	108			97.5%	105
Calif	MSA	Salinas	Monterey	290,444	118	1.3%	113	243	92.4%		104
Calif	MSA	San Bernardino, Barstow	San Bernardino	1,558,182	103	1.3%	100	109	99.5%		100
Calif	MSA	San Diego	San Diego (city)	1,861,846	116	1.3%	112	283	90.2%		101
Calif	MSA	San Francisco	San Francisco	1,488,871	123	1.3%	117	274	91.1%		106
Calif	MSA	San Jose	Santa Clara	1,295,071	113	1.3%	109	361	85.8%		93
Calif		San Luis Obispo	San Luis	155,345	111	1.3%	107			97.5%	104
Calif	MSA	Santa Barbara, Santa Maria	Santa Barbara	298,660	114	1.3%	110	201	94.5%		104
Calif	MSA	Santa Rosa, Bodega	Sonoma	299,827	120	1.3%	115	273	90.9%		104
Calif	MSA	Stockton	San Joaquin	347,342	108	1.3%	105	142	97.6%		103
Calif		Susanville	Lassen	21,661	109	1.3%	105			97.5%	103
Calif	MSA	Visalia	Tulare	245,751	101	1.3%	99	93	100.4%		100
Calif		Winters	Yolo	113,374	109	1.3%	106			97.5%	103
Colorado	MSA	Boulder, Allenspark	Boulder	189,625	98	2.0%	97			101.4%	98
Colorado		Castle Rock	Douglas	25,153	102	2.0%	101			101.4%	102
Colorado		Central City	Gilpin	2,441	102	2.0%	101			101.4%	102
Colorado	MSA	Colorado Springs, Calhan	El Paso	309,424	94	2.0%	94	70	101.9%		96
Colorado	MSA	Denver	Denver	1,428,836	100	2.0%	99	128	98.3%		97
Colorado		Florissant	Teller	8,034	105	2.0%	104			101.4%	105
Colorado	MSA	Fort Collins	Larimer	149,184	96	2.0%	95	89	100.7%		96
Colorado		Grand Junction	Mesa	81,530	96	2.0%	96			101.4%	97
Colorado	MSA	Greeley	Weld	123,438	100	2.0%	99	84	100.9%		100
Colorado		La Junta	Otero	23,567	95	2.0%	95			101.4%	96
Colorado		Lake George	Park	5,333	105	2.0%	104			101.4%	105
Colorado		Montrose	Montrose	24,352	98	2.0%	97			101.4%	99
Colorado	MSA	Pueblo	Pueblo	125,972	92	2.0%	92	71	101.9%		94
Colorado		Sterling	Logan	19,800	102	2.0%	100			101.4%	102
Colorado		Strasburg	Adams	245,944	102	2.0%	101			101.4%	102
Colorado		Trinidad	Las Animas	14,897	96	2.0%	96			101.4%	97
Conn	MSA	Hartford	Hartford	807,143	109	0.0%	104	82	101.0%		105
Conn	MSA	New Haven, Waterbury	New Haven	761,325	108	0.0%	103	105	99.7%		103
Conn	MSA	Norwich, New London	New London	238,409	97	0.0%	95	82	102.4%		97

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State		City or Urban Area	County	MSA or County Population	COST OF CONSUMPTION INDEX	STATE INCOME TAX RATE	COST OF LIVING INDEX	VALUE OF AMENITIES Site Index	% Adjustment Actual	% Adjustment Est	EQUILIBRIUM WAGES (CLI x % Adj)
Conn	MSA	Stamford, Bdgeprt, Grnwch	Fairfield	807,143	109	0.0%	104	124	98.6%		103
Conn		Torrington	Litchfield	156,769	100	0.0%	96			103.0%	98
Delaware		Dover	Kent	98,219	93	2.8%	94			102.0%	96
Delaware	MSA	Wilmington	New Castle	599,002	98	2.8%	98	89	101.9%		100
Dist Col	MSA	Washington, D. C.	Dist Columbia	638,432	105	3.4%	105	151	97.1%		102
Florida		Cocoa	Brevard	272,959	94	0.0%	92	70	101.9%		94
Florida	MSA	Daytona Beach	Volusia	256,762	91	0.0%	90	56	102.9%		92
Florida	MSA	Fort Lauderdale	Broward	1,018,257	100	0.0%	96	142	97.4%		94
Florida	MSA	Fort Myers	Lee	250,266	91	0.0%	90	62	102.6%		92
Florida	MSA	Fort Pierce	Saint Lucie	151,196	93	0.0%	91			102.6%	94
Florida	MSA	Gainesville	Alachua	171,371	91	0.0%	90	53	103.1%		92
Florida	MSA	Jacksonville	Duval	722,252	90	0.0%	88	48	103.5%		92
Florida	MSA	Lakeland	Polk	321,652	91	0.0%	90	46	103.6%		93
Florida	MSA	Miami	Dade	1,625,611	103	0.0%	99	113	99.2%		98
Florida	MSA	Naples	Collier	85,791	92	0.0%	90			102.6%	93
Florida	MSA	Orlando	Orange	700,055	97	0.0%	94	72	101.8%		96
Florida	MSA	Panama City	Bay	97,740	87	0.0%	87			102.6%	89
Florida	MSA	Pensacola	Escambia	299,782	88	0.0%	87	37	104.4%		90
Florida		Saint Petersburg	Pinellas	728,409	92	0.0%	90			102.6%	93
Florida	MSA	Sarasota	Sarasota	202,251	95	0.0%	93	124	98.8%		91
Florida	MSA	Tallahassee	Leon	190,220	92	0.0%	90	39	104.1%		94
Florida	MSA	Tampa	Hillsborough	1,613,603	91	0.0%	90	72	101.9%		91
Florida	MSA	West Palm Beach	Palm Beach	576,758	105	0.0%	101	102	99.9%		101
Georgia	MSA	Albany	Doughtery	112,402	85	2.6%	88	29	104.9%		92
Georgia	MSA	Athens	Clarke	130,015	90	2.6%	91			104.9%	96
Georgia	MSA	Atlanta	Fulton	2,138,231	95	2.6%	96	33	104.2%		100
Georgia	MSA	Augusta	Richmond	240,293	90	2.6%	92	30	104.6%		96
Georgia		Brunswick	Glynn	54,981	93	2.6%	94			104.9%	98
Georgia		Calhoun	Gordon	30,070	91	2.6%	92			104.9%	97
Georgia		Cartere	Murray	19,665	90	2.6%	91			104.9%	96
Georgia	MSA	Columbus	Muscogee	191,840	84	2.6%	86	24	105.3%		91
Georgia		Covington, New Born	Newton	34,849	92	2.6%	93			104.9%	98
Georgia		Dublin	Laurens	36,990	88	2.6%	90			104.9%	94
Georgia		Gainesville	Hall	75,649	82	2.6%	85			104.9%	89
Georgia		Griffin	Spalding	47,899	92	2.6%	93			104.9%	98
Georgia		Hogansville	Troup	50,003	92	2.6%	93			104.9%	98
Georgia		Jackson	Butts	3,665	92	2.6%	93			104.9%	98
Georgia	MSA	Macon	Bibb	263,591	90	2.6%	91	23	105.0%		96
Georgia		Milner	Lamar	12,215	87	2.6%	89			104.9%	94
Georgia		Newnan	Coweta	39,268	92	2.6%	93			104.9%	98

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State		City or Urban Area	County	MSA or County Population	COST OF CONSUMPTION INDEX	STATE INCOME TAX RATE	COST OF LIVING INDEX	VALUE OF AMENITIES Site Index	% Adjustment Actual	% Adjustment Est	EQUILIBRIUM WAGES (CLI x % Adj)
Georgia		Rome	Floyd	79,800	96	2.6%	96			104.9%	101
Georgia	MSA	Savannah	Chatham	220,553	94	2.6%	95	54	102.9%		97
Georgia		Valdosta	Lowndes	67,972	80	2.6%	83			104.9%	87
Georgia		Waycross	Ware	371,180	82	2.6%	84			104.9%	89
Georgia		Zebulon	Pike	8,937	92	2.6%	93			104.9%	98
Hawaii	MSA	Honolulu	Honolulu	762,874	123	3.9%	121	334	88.3%		107
Idaho	MSA	Boise	Ada	173,125	100	3.1%	100	74	101.6%		102
Idaho		Idaho Falls	Bonneville	65,980	95	3.1%	96			101.7%	98
Idaho		Kellogg	Shoshone	19,226	101	3.1%	101			101.7%	103
Idaho		Lewiston	Nez Perce	33,220	100	3.1%	100			101.7%	102
Idaho		Pocatello	Bannock	65,421	96	3.1%	97			101.7%	98
Idaho		Twin Falls	Twin Falls	52,927	91	3.1%	93			101.7%	95
Illinois	MSA	Alton	Madison	266,229	101	2.1%	100			102.6%	103
Illinois	MSA	Aurora	Kane	315,807	103	2.1%	102	85	100.9%		103
Illinois		Carbondale	Jackson	61,649	96	2.1%	96			102.6%	99
Illinois		Centralia	Marion	43,523	99	2.1%	98			102.6%	101
Illinois	MSA	Champaign	Champaign	168,392	99	2.1%	98	50	103.0%		101
Illinois	MSA	Chicago (2)	Cook	6,060,387	103	2.1%	102	98	100.1%		102
Illinois		Freeport	Stephenson	49,536	102	2.1%	101			102.6%	104
Illinois		Galesburg	Knox	61,607	102	2.1%	101			102.6%	104
Illinois		Glen Ellyn	Du Page	658,858	100	2.1%	99			102.6%	102
Illinois	MSA	Joliet	Will	355,042	104	2.1%	103	60	102.4%		105
Illinois	MSA	Kankakee	Kankakee	102,926	102	2.1%	101			102.6%	103
Illinois		Mattoon	Coles	52,992	98	2.1%	97			102.6%	100
Illinois		Olney	Richland	17,587	96	2.1%	96			102.6%	99
Illinois	MSA	Peoria	Peoria	365,864	101	2.1%	100	45	103.3%		103
Illinois		Quincy	Adams	71,622	91	2.1%	92			102.6%	94
Illinois	MSA	Rock Island, Moline	Rock Island	279,514	100	2.1%	99	66	102.1%		101
Illinois		Rockford	Winnebago	254,884	102	2.1%	101	41	103.5%		104
Illinois	MSA	Springfield	Sangamon	187,789	96	2.1%	96	58	102.6%		99
Illinois		Waukegon	Lake	440,388	103	2.1%	102			102.6%	104
Indiana	MSA	Bloomington	Monroe	119,149	98	2.7%	98			104.0%	100
Indiana	MSA	Evansville	Vanderburgh	235,403	95	2.7%	96	42	103.6%		100
Indiana	MSA	Fort Wayne	Allen	354,156	90	2.7%	92	34	104.4%		96
Indiana	MSA	Gary	Lake	642,781	97	2.7%	97	38	103.8%		101
Indiana		Greensburg	Henry	53,336	97	2.7%	97			104.0%	101
Indiana	MSA	Indianapolis	Marion	1,166,878	95	2.7%	96	38	104.1%		100
Indiana	MSA	Kokomo	Howard	103,716	93	2.7%	94	42	103.7%		97
Indiana	MSA	Lafayette	Tippecanoe	121,702	90	2.7%	92	72	101.8%		93

Table 2. Consumption, State Income Tax Rate, Cost of Living, Value of Amenities, and Equilibrium Wages by City, 1985-87.

All indexes are based on a U.S. population weighted average = 100.

State		City or Urban Area	County	MSA or County Population	COST OF CONSUMPTION INDEX	STATE INCOME TAX RATE	COST OF LIVING INDEX	VALUE OF AMENITIES Site Index	% Adjustment Actual	% Adjustment Est	EQUILIBRIUM WAGES (CLI x % Adj)
Indiana	MSA	Muncie	Delaware	128,587	92	2.7%	93	28	104.7%		98
Indiana		New Albany	Floyd	61,205	93	2.7%	94			104.0%	97
Indiana		Richmond	Wayne	76,058	101	2.7%	101			104.0%	105
Indiana	MSA	South Bend	Saint Joseph	241,617	89	2.7%	91	26	104.9%		95
Indiana	MSA	Terre Haute	Vigo	137,247	98	2.7%	98			104.0%	102
Iowa		Burlington	Des Moines	40,775	96	2.4%	97			102.4%	99
Iowa	MSA	Cedar Rapids	Linn	169,775	93	2.4%	94	63	102.4%		96
Iowa		Council Bluffs	Pottawattamie	86,500	96	2.4%	98			102.4%	98
Iowa		Creston	Union	13,858	93	2.4%	94			102.4%	96
Iowa	MSA	Davenport	Scott	160,022	98	2.4%	98	67	102.1%		100
Iowa	MSA	Des Moines	Polk	367,561	93	2.4%	94	63	102.4%		96
Iowa	MSA	Dubuque	Dubuque	93,745	97	2.4%	97	78	101.4%		98
Iowa		Fort Dodge	Webster	45,953	93	2.4%	94			102.4%	96
Iowa		Marshalltown	Marshall	41,652	90	2.4%	91			102.4%	93
Iowa		Mason City	Cerro Gordo	48,458	92	2.4%	93			102.4%	95
Iowa		Ottumwa	Wapello	40,241	95	2.4%	95			102.4%	97
Iowa	MSA	Sioux City	Woodberry	100,884	91	2.4%	92	45	103.6%		96
Iowa		Spencer	Clay	19,576	88	2.4%	90			102.4%	92
Iowa	MSA	Waterloo	Black Hawk	162,781	95	2.4%	95	59	102.6%		98
Kansas		Arkansas City	Cowley	36,824	88	1.2%	88			103.9%	92
Kansas		Atchison	Atchison	16,397	99	1.2%	97			103.9%	101
Kansas		Colby	Thomas	8,451	88	1.2%	88			103.9%	92
Kansas		Dodge City	Ford	24,315	84	1.2%	85			103.9%	88
Kansas		Emporia	Lyon	35,108	96	1.2%	95			103.9%	98
Kansas		Garden City	Finney	23,825	90	1.2%	90			103.9%	94
Kansas		Great Bend	Barton	31,343	87	1.2%	88			103.9%	91
Kansas		Hays	Ellis	26,098	89	1.2%	89			103.9%	93
Kansas		Independence	Montgomery	42,281	89	1.2%	89			103.9%	93
Kansas	MSA	Kansas City	Wyandotte	519,031	94	1.2%	93	45	103.6%		97
Kansas	MSA	Lawrence	Douglas	67,640	94	1.2%	93	36	104.1%		97
Kansas		Leavenworth	Leavenworth	54,809	99	1.2%	97			103.9%	101
Kansas		Liberal	Seward	17,071	95	1.2%	94			103.9%	98
Kansas		Louisburg	Miami	21,618	99	1.2%	97			103.9%	101
Kansas		Salina	Saline	48,905	88	1.2%	88			103.9%	92
Kansas	MSA	Topeka	Shawnee	154,196	93	1.2%	93	45	103.6%		96
Kansas	MSA	Wichita	Sedgwick	411,313	89	1.2%	89	39	104.1%		93
Kentucky		Ashland	Boyd	55,513	96	2.2%	95			103.4%	98
Kentucky		Bowling Green	Warren	71,826	91	2.2%	91			103.4%	95
Kentucky		Covington	Kenton	137,056	100	2.2%	99			103.4%	102
Kentucky		Elizabethtown	Hardin	88,917	85	2.2%	87			103.4%	90
Kentucky	MSA	Lexington	Fayette	317,629	92	2.2%	93	61	102.5%		96

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Kentucky	MSA	Louisville	Jefferson	779,406	90	2.2%	91	45	103.6%		94
Kentucky		Madisonville	Hopkins	46,174	88	2.2%	89			103.4%	92
Kentucky		Middlesboro	Bell	34,330	86	2.2%	88			103.4%	91
Kentucky	MSA	Owensboro	Daviess	85,949	91	2.2%	92	47	103.5%		95
Kentucky		Paducah	McCraken	61,310	93	2.2%	93			103.4%	96
Kentucky		Pikesville	Pike	81,123	95	2.2%	95			103.4%	98
Kentucky		Somerset	Pulaski	45,803	85	2.2%	87			103.4%	90
Louisiana	MSA	Alexandria	Rapides	135,282	90	0.6%	89	32	104.6%		93
Louisiana	MSA	Baton Rouge	East Baton	494,151	88	0.6%	87	64	102.5%		89
Louisiana		Bogalusa	Washington	44,207	95	0.6%	93			104.0%	97
Louisiana		Gonzales	Ascension	50,068	92	0.6%	91			104.0%	94
Louisiana		Hammond	Tangipahoa	80,698	90	0.6%	89			104.0%	93
Louisiana	MSA	Houma	Terrebonne	176,876	92	0.6%	91			104.0%	94
Louisiana		Lafayette	Lafayette	190,231	95	0.6%	93			104.0%	97
Louisiana	MSA	Lake Charles	Calcasieu	167,223	95	0.6%	93	61	102.5%		95
Louisiana		Metairie, Gretna	Jefferson	454,592	94	0.6%	92			104.0%	96
Louisiana	MSA	Monroe	Ouachita	139,241	89	0.6%	89	30	104.7%		93
Louisiana		New Iberia	Iberia	63,752	93	0.6%	91			104.0%	95
Louisiana	MSA	New Orleans	rleans	1,256,256	94	0.6%	92	145	97.1%		90
Louisiana		Port Sulphur	Plaquemines	26,049	94	0.6%	92			104.0%	96
Louisiana		Reserve	St. John Baptist	31,924	94	0.6%	92			104.0%	96
Louisiana	MSA	Shreveport	Caddo	333,079	92	0.6%	91	60	102.6%		94
Maine		Augusta	Kennebec	109,889	94	1.4%	93			103.2%	96
Maine	MSA	Bangor	Penobscot	137,015	92	1.4%	92	43	103.7%		95
Maine		Machias	Washington	34,963	95	1.4%	94			103.2%	97
Maine	MSA	Portland	Cumberland	215,789	97	1.4%	96	59	102.6%		99
Maine		Presque Isle	Aroostook	91,344	94	1.4%	93			103.2%	96
Maryland		Annapolis, Glen Burnie	Ann Arundel	370,775	98	3.4%	99			102.0%	101
Maryland	MSA	Baltimore	Independent City	2,199,531	103	3.4%	103	134	98.0%		101
Maryland		Cambridge	Dorchester	30,623	94	3.4%	96			102.0%	97
Maryland	MSA	Cumberland	Allegany	80,548	98	3.4%	99			102.0%	101
Maryland		Easton	Talbot	25,604	92	3.4%	94			102.0%	96
Maryland		Edgewood	Harford	145,930	99	3.4%	100			102.0%	102
Maryland	MSA	Hagerstown	Washington	113,086	95	3.4%	96	67	102.0%		98
Maryland		Randallstown, Reisterstwn	Baltimore	655,615	99	3.4%	100			102.0%	102
Maryland		Salisbury	Wicomico	645,540	94	3.4%	96			102.0%	97
Maryland		Silver Springs	Montgomery	579,053	98	3.4%	99			102.0%	101
Mass	MSA	Boston, Lexington, Milton	Suffolk	2,805,911	111	3.6%	110	101	100.0%		110
Mass	MSA	Brockton	Plymouth	405,437	104	3.6%	104	61	102.2%		107

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Mass		Concord	Middlesex	205055	111	3.6%	111			103.0%	114
Mass		Hyannis	Barnstable	147,928	104	3.6%	105			103.0%	108
Mass	MSA	Lowell	Middlesex	1,161,979	104	3.6%	104			103.0%	107
Mass		Lynn	Essex	424,544	111	3.6%	111			103.0%	114
Mass	MSA	New Bedford	Bristol	474,641	103	3.6%	103			103.0%	107
Mass		Norwood	Norfolk	606,587	111	3.6%	111			103.0%	114
Mass	MSA	Pittsfield	Berkshire	145,110	98	3.6%	98			103.0%	101
Mass	MSA	Salem	Essex	258,175	102	3.6%	103			103.0%	106
Mass	MSA	Springfield	Hampden	515,259	94	3.6%	96	40	103.8%		100
Mass	MSA	Worcester, Ptchbrg, Wbstr	Worcester	646,352	103	3.6%	104			103.0%	107
Michigan		Alpena	Alpena	32,315	97	2.9%	98			103.9%	101
Michigan	MSA	Ann Arbor	Washtenaw	264,740	109	2.9%	107			103.9%	112
Michigan		Charlotte	Eaton	88,337	95	2.9%	96	38	103.9%		100
Michigan		Clinton, Adrian	Lenawee	89,948	109	2.9%	107			103.9%	112
Michigan	MSA	Detroit	Wayne	4,488,072	111	2.9%	110	44	103.1%		113
Michigan	MSA	Flint, Fenton, Goodrich	Genesee	450,449	104	2.9%	104	28	104.2%		108
Michigan	MSA	Grand Rapids	Kent	601,680	98	2.9%	98	39	103.7%		102
Michigan		Hamburg	Livingston	100,289	109	2.9%	107			103.9%	112
Michigan		Imlay City, Hadley	Lapeer	70,038	105	2.9%	104			103.9%	108
Michigan		Ironwood	Gogebic	19,686	94	2.9%	95			103.9%	99
Michigan	MSA	Kalamazoo	Kalamazoo	212,378	101	2.9%	101	33	103.9%		105
Michigan	MSA	Lansing	Ingham	419,750	104	2.9%	104	47	103.0%		107
Michigan		Marquette	Marquette	74,101	97	2.9%	98			103.9%	102
Michigan	MSA	Muskegon	Muskegon	157,589	96	2.9%	97			103.9%	100
Michigan		Petersburg, Luna Pier	Monroe	134,659	109	2.9%	107			103.9%	112
Michigan		Petosky	Emmet	22,992	95	2.9%	96			103.9%	100
Michigan		Port Huron	Saint Clair	138,802	102	2.9%	101			103.9%	105
Michigan		Portland	Iona	51,815	101	2.9%	101			103.9%	105
Michigan		Saint Johns	Clinton	55,893	101	2.9%	101			103.9%	105
Michigan		Sault Sainte Marie	Chippewa	29,029	96	2.9%	97			103.9%	100
Michigan		Stockbridge	Ingham	272,437	101	2.9%	101			103.9%	105
Michigan		Traverse City	Grand	54,899	102	2.9%	102			103.9%	105
Minnesota		Brainerd	Crow Wing	41,722	95	3.3%	97			102.6%	99
Minnesota		Chanhassen	Carver	37,046	105	3.3%	105			102.6%	107
Minnesota	MSA	Duluth, Virginia	St. Louis	222,229	96	3.3%	97	45	103.4%		100
Minnesota		Hutchinson	McLeod	29,657	105	3.3%	105			102.6%	107
Minnesota		Mankato	Blue Earth	52,314	94	3.3%	95			102.6%	98
Minnesota	MSA	Minneapolis	Hennipin	2,093,261	102	3.3%	102	86	100.8%		103
Minnesota		Montevideo	Chippewa	14,941	89	3.3%	92			102.6%	94
Minnesota		Northfield	Rice	46,087	105	3.3%	105			102.6%	107
Minnesota		Owatonna	Steele	30,328	98	3.3%	99			102.6%	102
Minnesota		Princeton	Mille Lacs	18,430	98	3.3%	99			102.6%	101
Minnesota	MSA	Rochester	Olmsted	92,006	97	3.3%	98	91	100.6%		98

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Minnesota	MSA	Saint Cloud, Kimball Pra	Sterns	163,258	97	3.3%	98	58	102.6%		101
Minnesota		Saint Paul	Ramsey	459,784	103	3.3%	103			102.6%	106
Minnesota		Winona	Winona	46,256	98	3.3%	99			102.6%	102
Minnesota		Winthrop	Sibley	15,488	94	3.3%	95			102.6%	98
Miss		Clarksdale	Coahoma	56,916	87	0.8%	87			104.3%	91
Miss		Columbus	Lowndes	57,304	84	0.8%	84			104.3%	88
Miss		Greenville	Washington	72,344	87	0.8%	87			104.3%	91
Miss		Greenwood	Leflore	41,525	83	0.8%	84			104.3%	87
Miss		Gulfport	Harrison	157665	92	0.8%	91	36	104.2%		95
Miss		Hattiesburg	Forrest	66,018	93	0.8%	92			104.3%	96
Miss	MSA	Jackson	Hinds	362,038	90	0.8%	89	42	103.9%		93
Miss		Meridian	Lauderdale	77,285	84	0.8%	84			104.3%	88
Miss		Natchez	Adams	36,071	84	0.8%	84			104.3%	88
Miss		Tupelo	Lee	57,061	88	0.8%	88			104.3%	92
Missouri		Cape Giradeau	Cape Giradeau	58,837	94	1.4%	93			104.3%	97
Missouri		Chillicothe	Livingston	15,739	93	1.4%	92			104.3%	96
Missouri		Clinton	Henry	19,672	93	1.4%	92			104.3%	96
Missouri	MSA	Columbia	Boone	100,376	89	1.4%	90	37	104.2%		93
Missouri		Farmington, Bismark	Saint Francois	42,600	100	1.4%	98			104.3%	102
Missouri		Hannibal	Marion	28,636	96	1.4%	95			104.3%	99
Missouri		Hermann, Owensville	Gasconade	13,181	95	1.4%	94			104.3%	98
Missouri		Jefferson City	Cole	56,663	84	1.4%	85			104.3%	89
Missouri	MSA	Joplin	Jasper	127,513	87	1.4%	87	28	105.1%		91
Missouri	MSA	Kansas City, Independence	Jackson	914,437	94	1.4%	94	44	103.6%		97
Missouri		Kirksville	Adair	24,870	87	1.4%	87			104.3%	91
Missouri		Montgomery City, Hgh Hill	Montgomery	11,537	95	1.4%	94			104.3%	98
Missouri		New Hartford	Pike	17,568	96	1.4%	95			104.3%	100
Missouri		Plattsburg	Clinton	15,916	98	1.4%	96			104.3%	101
Missouri		Poplar Bluff	Butler	37,693	92	1.4%	91			104.3%	95
Missouri		Potasi	Washington	17,983	96	1.4%	95			104.3%	100
Missouri		Rolla	Phelps	33,633	96	1.4%	95			104.3%	100
Missouri	MSA	Saint Joseph	Buchanan	87,888	87	1.4%	87	37	104.3%		91
Missouri	MSA	Saint Louis	Independent City	1,788,483	94	1.4%	94	49	103.3%		97
Missouri	MSA	Springfield	Greene	187,789	90	1.4%	90	30	104.7%		94
Missouri		Sullivan, Gerald	Franklin	71,233	96	1.4%	95			104.3%	100
Missouri		Warrensburg	Johnson	39,059	98	1.4%	96			104.3%	101
Missouri		West Plains	Howell	28,807	78	1.4%	80			104.3%	83
Montana	MSA	Billings	Yellowstone	108,035	98	2.0%	98	85	100.9%		99
Montana		Butte	Silver Bow	38,092	95	2.0%	95			101.4%	96
Montana	MSA	Great Falls	Cascade	80,696	97	2.0%	97	71	101.8%		98
Montana		Havre	Hill	17,985	98	2.0%	98			101.4%	99

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Montana		Helena	Lewis and Clark	43,039	95	2.0%	95			101.4%	96
Montana		Kalispell	Flathead	51,966	96	2.0%	96			101.4%	97
Montana		Miles City	Custer	13,109	96	2.0%	96			101.4%	97
Montana		Missoula	Missoula	76,016	95	2.0%	95			101.4%	96
Nebraska		Columbus	Platte	28,852	89	1.6%	90			102.7%	92
Nebraska		Grand Island	Hall	47,690	85	1.6%	87			102.7%	89
Nebraska		Kearney	Buffalo	34,797	86	1.6%	87			102.7%	89
Nebraska	MSA	Lincoln	Lancaster	192,884	91	1.6%	91	89	102.0%		93
Nebraska		Norfolk	Madison	31,382	91	1.6%	91			102.7%	94
Nebraska		North Platte	Lincoln	36,455	89	1.6%	90			102.7%	92
Nebraska	MSA	Omaha	Douglas	499,407	92	1.6%	92	48	103.4%		95
Nebraska		Scotts Bluff	Scotts Bluff	38,344	87	1.6%	88			102.7%	90
Nevada		Elko	Elko	17,269	107	0.0%	103			97.4%	100
Nevada	MSA	Las Vegas	Clark	463,087	102	0.0%	98	119	98.8%		97
Nevada	MSA	Reno	Washoe	193,623	108	0.0%	103	169	96.0%		99
New Hamp		Claremont	Sullivan	36,063	96	0.0%	93			103.0%	96
New Hamp	MSA	Manchester	Hillsboro	276,608	103	0.0%	99	93	100.4%		100
New Hamp	MSA	Portsmouth	Rockingham	190,345	97	0.0%	95	81	103.1%		98
New Jersey		Asbury Park	Monmouth	503,173	104	1.3%	102	89	101.8%		104
New Jersey	MSA	Atlantic City	Atlantic	276,838	105	1.3%	102	81	102.9%		105
New Jersey		Bridgeton	Cumberland	132,866	107	1.3%	104	33	103.8%		108
New Jersey		Camden, Cherry Hill	Camden	471,650	101	1.3%	99			99.9%	99
New Jersey		Flemington	Hunterdon	87,361	101	1.3%	99			99.9%	99
New Jersey		Hackensack	Bergen	845,385	102	1.3%	100			99.9%	99
New Jersey	MSA	Jersey City	Hudson	556,972	123	1.3%	117	139	98.0%		115
New Jersey		Morristown	Morris	407,630	102	1.3%	100			99.9%	100
New Jersey		New Brunswick, East Brnwk	Middlesex	595,893	113	1.3%	109	148	97.8%		106
New Jersey	MSA	Newark, Orange	Essex	1,878,959	118	1.3%	113	110	99.5%		113
New Jersey		Paterson	Passaic	447,585	110	1.3%	106	102	99.9%		106
New Jersey		Phillipsburg	Warren	84,429	103	1.3%	101			99.9%	101
New Jersey		Toms River	Ocean	346,038	102	1.3%	100			99.9%	100
New Jersey	MSA	Trenton	Mercer	307,863	109	1.3%	106	101	99.9%		106
New Jersey		Wildwood	Cape May	82,266	107	1.3%	104			99.9%	104
New Mexico	MSA	Albuquerque	Bernalillo	420,261	96	0.1%	94	101	100.0%		94
New Mexico		Clovis	Curry	42,019	96	0.1%	94			101.2%	95
New Mexico		Farmington	San Juan	80,833	98	0.1%	95			101.2%	96
New Mexico		Gallup	McKinley	56,536	96	0.1%	93			101.2%	95

Table 2. Consumption, State Income Tax Rate, Cost of Living, Value of Amenities, and Equilibrium Wages by City, 1985-87.

All indexes are based on a U.S. population weighted average = 100.

State		City or Urban Area	County	MSA or County Population	COST OF CONSUMPTION INDEX	STATE INCOME TAX RATE	COST OF LIVING INDEX	VALUE OF AMENITIES Site Index	% Adjustment Actual	% Adjustment Est	EQUILIBRIUM WAGES (CLI x % Adj)
New Mexico		Hobbs	ea	55,634	98	0.1%	95			101.2%	96
New Mexico	MSA	Las Cruces	Dona Ana	96,340	93	0.1%	91	81	101.2%		92
New Mexico		Roswell	Chaves	51,103	91	0.1%	89			101.2%	91
New Mexico	MSA	Santa Fe	Santa Fe	75,519	95	0.1%	92			101.2%	94
New York	MSA	Albany	Albany	835,800	103	2.1%	101	40	103.6%		105
New York	MSA	Binghamton	Broome	263,460	99	2.1%	98	49	103.1%		101
New York	MSA	Buffalo	Erie	1,015,472	102	2.1%	101	40	103.6%		104
New York	MSA	Elmira	Chemung	97,656	99	2.1%	98			103.4%	102
New York	MSA	Glen Falls	Warren	109,649	97	2.1%	96			103.4%	100
New York		Jamestown	Chautaugua	146,925	99	2.1%	98			103.4%	102
New York		Kingston	Ulster	158,158	101	2.1%	100			103.4%	103
New York	MSA	Nassau	Rensselaer	2,605,813	112	2.1%	109	61	102.2%		111
New York	MSA	New York	Manhatten	8,274,961	130	2.1%	124	169	96.7%		120
New York		Plattsburgh	Clinton	80,750	95	2.1%	95			103.4%	98
New York		Potsdam	Saint Lawrence	114,347	99	2.1%	98			103.4%	102
New York	MSA	Poughkeepsie	Dutchess	245,055	102	2.1%	101	44	103.3%		105
New York	MSA	Rochester	Monroe	971,230	100	2.1%	99	44	103.4%		103
New York		Schenectady	Schenectady	149,946	101	2.1%	100			103.4%	103
New York	MSA	Syracuse	Onondaga	642,971	99	2.1%	99	45	103.3%		102
New York	MSA	Utica	Oneida	320,180	98	2.1%	98			103.4%	101
New York		Watertown	Jefferson	88,151	99	2.1%	98			103.4%	102
New York		White Plains, Rye	Westchester	866,599	113	2.1%	110			103.4%	113
North Car	MSA	Asheville	Buncombe	160,934	79	3.0%	83	31	105.0%		87
North Car	MSA	Charlotte	Mecklenberg	864,727	92	3.0%	94			104.6%	98
North Car	MSA	Fayetteville	Cumberland	247,160	85	3.0%	88			104.6%	92
North Car		Goldsboro	Wayne	97,054	81	3.0%	84			104.6%	88
North Car	MSA	Greensboro	Guilford	851,851	87	3.0%	89	31	104.6%		93
North Car		Lenoir	Caldwell	67,746	82	3.0%	85			104.6%	89
North Car		New Bern	Craven	71,074	83	3.0%	86			104.6%	90
North Car	MSA	Raleigh	Wake	561,222	89	3.0%	91	43	103.8%		94
North Car		Rocky Mount	Edgecombe	55,988	88	3.0%	90			104.6%	94
North Car	MSA	Wilmington	New Hanover	103,471	86	3.0%	89	34	104.5%		93
North Car		Winston-Salem	Forsyth	243,704	89	3.0%	91			104.6%	95
North Dak	MSA	Bismark	Burleigh	79,988	98	0.9%	96	90	100.6%		96
North Dak		Devils Lake	Ramsey	13,048	91	0.9%	91			101.6%	92
North Dak	MSA	Fargo	Cass	88,247	93	0.9%	92	70	101.9%		94
North Dak	MSA	Grand Forks	Grand Forks	66,100	97	0.9%	95	75	101.6%		97
North Dak		Jamestown	Stutsman	24,154	88	0.9%	88			101.6%	89
North Dak		Minot	Ward	58,392	93	0.9%	92			101.6%	94
North Dak		Williston	Williams	22,237	88	0.9%	88			101.6%	89

Table 2. Consumption, State Income Tax Rate, Cost of Living, Value of Amenities, and Equilibrium Wages by City, 1985-87.

All indexes are based on a U.S. population weighted average = 100.

State		City or Urban Area	County	MSA or County Population	COST OF CONSUMPTION INDEX	STATE INCOME TAX RATE	COST OF LIVING INDEX	VALUE OF AMENITIES Site Index	% Adjustment Actual	% Adjustment Est	EQUILIBRIUM WAGES (CLI x % Adj)
Ohio	MSA	Akron	Summit	660,328	96	1.8%	96	49	103.2%		99
Ohio		Athens	Athens	58,399	95	1.8%	95			103.4%	98
Ohio	MSA	Canton	Stark	404,421	85	1.8%	87	40	104.1%		90
Ohio	MSA	Cincinnati	Hamilton	1,100,962	96	1.8%	96	56	102.7%		98
Ohio	MSA	Cleveland, North Olmsted	Cuyahoga	1,898,825	101	1.8%	99	74	101.6%		101
Ohio	MSA	Columbus	Franklin	1,243,833	100	1.8%	99	61	102.3%		101
Ohio	MSA	Dayton, Brokvile, Grantwn	Montgomery	942,083	96	1.8%	96	45	103.5%		99
Ohio		Decatur	Brown	31,920	97	1.8%	97	45	103.4%		100
Ohio		Eaton	Preble	38,223	96	1.8%	96			103.4%	99
Ohio	MSA	Elyria	Lorain	274,909	101	1.8%	100	68	101.9%		102
Ohio		Lewisburg	Logan	39,155	101	1.8%	100			103.4%	103
Ohio	MSA	Lima	Allen	154,795	92	1.8%	92	48	103.4%		96
Ohio	MSA	Mansfield	Richland	131,205	93	1.8%	93	30	104.5%		98
Ohio		Niles, Cortland, Minrl Rg	Trumbull	241,863	102	1.8%	101			103.4%	104
Ohio		Painesville	Lake	212,801	105	1.8%	103			103.4%	107
Ohio		Polk	Ashland	46,178	100	1.8%	99			103.4%	102
Ohio		Portsmouth	Scioto	84,545	100	1.8%	99			103.4%	102
Ohio		Sandusky	Erie	79,655	103	1.8%	101			103.4%	105
Ohio		Spring Valley, Xenia	Greene	129,769	100	1.8%	99			103.4%	102
Ohio	MSA	Steubenville	Jefferson	91,564	98	1.8%	97			103.4%	101
Ohio	MSA	Toledo	Lucas	616,864	98	1.8%	98	53	102.9%		100
Ohio	MSA	Youngstown	Mahoning	531,350	90	1.8%	90	33	104.5%		94
Ohio		Zanesville	Muskingum	83,340	96	1.8%	96			103.4%	99
Oklahoma		Ardmore	Carter	43,610	93	1.2%	93			103.2%	96
Oklahoma		Bartlesville	Washington	48,113	95	1.2%	94			103.2%	97
Oklahoma		Clinton	Custer	28,995	96	1.2%	95			103.2%	98
Oklahoma	MSA	Enid	Garfield	62,820	90	1.2%	90	36	104.3%		94
Oklahoma		Hugo	Choctaw	17,203	87	1.2%	87			103.2%	90
Oklahoma	MSA	Lawton	Comanchi	112,456	90	1.2%	90	41	104.0%		93
Oklahoma		McAlester	Pittsburg	40,524	98	1.2%	97			103.2%	100
Oklahoma		Muskogee	Muskogee	67,033	93	1.2%	93			103.2%	96
Oklahoma	MSA	Oklahoma City	Oklahoma	860,969	93	1.2%	92	65	102.3%		94
Oklahoma		Stillwater	Payne	62,435	95	1.2%	94			103.2%	97
Oklahoma	MSA	Tulsa	Tulsa	657,173	97	1.2%	96	73	101.7%		97
Oregon		Astoria	Clatsop	32,489	101	4.0%	102			101.3%	104
Oregon		Bend	Deschutes	62,142	102	4.0%	103			101.3%	104
Oregon	MSA	Eugene	Lane	275,226	106	4.0%	106	106	99.7%		106
Oregon	MSA	Medford	Jackson	132,456	98	4.0%	100			101.3%	101
Oregon		Pendelton	Umatilla	58,861	99	4.0%	101			101.3%	102
Oregon	MSA	Portland	Multanomah	1,105,699	108	4.0%	108	121	98.8%		107
Oregon	MSA	Salem	Marion	249,895	101	4.0%	102	84	100.9%		103
Oregon		The Dalles	Wasco	21,732	100	4.0%	102			101.3%	103

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State		City or Urban Area	County	MSA or County Population	COST OF CONSUMPTION INDEX	STATE INCOME TAX RATE	COST OF LIVING INDEX	VALUE OF AMENITIES Site Index	% Adjustment Actual	% Adjustment Net	EQUILIBRIUM WAGES (CLI x % Adj)
Penn	MSA	Allentown	Lehigh	552,280	105	2.6%	104	112	99.3%		103
Penn	MSA	Altoona	Blair	136,621	94	2.6%	94			102.7%	97
Penn		Camp Hill	Cumberland	179,625	95	2.6%	95			102.7%	98
Penn		Dayton, Sagamore	Armstrong	77,768	100	2.6%	100			102.7%	102
Penn		DuBois	Clearfield	83,578	98	2.6%	98			102.7%	100
Penn	MSA	Erie, Waterford	Erie	279,780	97	2.6%	97	57	102.7%		100
Penn		Greensburg, Murrysville	Westmoreland	392,184	104	2.6%	103			102.7%	106
Penn	MSA	Harrisburg, Middletown	Dauphin	555,158	100	2.6%	99	62	102.3%		102
Penn		Indiana	Indiana	92,281	100	2.6%	100			102.7%	102
Penn	MSA	Johnstown	Cambria	264,506	100	2.6%	100			102.7%	102
Penn	MSA	Lancaster, Bart, Adamstwn	Lancaster	362,346	98	2.6%	98	63	102.3%		100
Penn		Levittown	Bucks	479,180	109	2.6%	107			102.7%	110
Penn		New Castle, Ellwood City	Lawrence	107,150	103	2.6%	102			102.7%	105
Penn	MSA	Philadelphia	Philadelphia	3,682,450	116	2.6%	113	81	101.0%		114
Penn	MSA	Pittsburgh	Allegheny	2,218,870	98	2.6%	98	76	101.5%		100
Penn		Pottstown	Montgomery	643,371	109	2.6%	107			102.7%	110
Penn	MSA	Reading	Berks	312,509	103	2.6%	102	56	102.8%		104
Penn	MSA	Scranton	Lackawanna	728,790	96	2.6%	96	81	103.1%		99
Penn		Somerset, Jnrstwn, Ursina	Somerset	81,243	100	2.6%	100			102.7%	102
Penn		Washington	Washington	217,074	99	2.6%	99			102.7%	101
Penn		West Chester, Coatsvle	Chester	316,660	109	2.6%	107			102.7%	110
Penn		Wilkes-Barre	Luzerne	343,079	91	2.6%	92			102.7%	94
Penn	MSA	Williamsport	Lycoming	118,416	96	2.6%	96			102.7%	99
Rhode Is	MSA	Providence	Providence	618,514	106	1.6%	103	70	101.8%		105
South Car	MSA	Anderson	Anderson	133,235	92	2.9%	93	80	101.3%		94
South Car		Beaufort	Beaufort	65,365	91	2.9%	92			104.2%	96
South Car	MSA	Charleston	Charleston	430,462	87	2.9%	89	45	103.7%		93
South Car	MSA	Columbia	Richland	410,088	92	2.9%	94	34	104.2%		98
South Car	MSA	Florence	Florence	110,163	87	2.9%	90	38	104.2%		93
South Car	MSA	Greenville	Greenville	569,066	87	2.9%	89	25	105.1%		94
South Car		Greenwood	Greenwood	57,847	89	2.9%	91			104.2%	94
South Car		Myrtle Beach	Horry	101,419	90	2.9%	91			104.2%	95
South Car		Orangeburg	Orangeburg	82,276	88	2.9%	90			104.2%	94
South Dak		Aberdeen	Brown	36,962	93	0.0%	91			102.7%	94
South Dak		Chamberlain	Brule	5,245	92	0.0%	90			102.7%	93
South Dak		Huron	Beadle	19,195	93	0.0%	91			102.7%	93
South Dak		Pierre	Hughes	14,220	89	0.0%	88			102.7%	90
South Dak	MSA	Rapid City	Pennington	70,133	93	0.0%	91	61	102.6%		94
South Dak	MSA	Sioux Falls	Minnehaha	109,435	95	0.0%	93	87	102.8%		96

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South Dak		Watertown	Codington	20,885	90	0.0%	89			102.7%	91
South Dak		Yankton	Yankton	18,952	91	0.0%	89			102.7%	92
Tennessee	MSA	Chattanooga	Hamilton	320,781	86	0.0%	85	17	105.9%		90
Tennessee	MSA	Clarksville	Montgomery	83,342	87	0.0%	87	28	105.2%		91
Tennessee		Columbia	Maury	51,095	84	0.0%	83			105.2%	88
Tennessee		Cookeville	Putnam	47,801	86	0.0%	85			105.2%	90
Tennessee		Jackson	Madison	74,546	91	0.0%	89			105.2%	94
Tennessee	MSA	Johnson City	Washington	363,041	89	0.0%	88	24	105.2%		92
Tennessee		Kingsport	Sullivan	143,968	94	0.0%	92			105.2%	96
Tennessee	MSA	Knoxville	Knox	585,970	91	0.0%	90	26	104.9%		94
Tennessee	MSA	Memphis	Shelby	809,980	93	0.0%	91	47	103.5%		94
Tennessee	MSA	Nashville	Davidson	850,505	90	0.0%	89	38	104.2%		93
Tennessee		Union City	Obion	32,781	88	0.0%	87			105.2%	92
Texas	MSA	Abilene	Taylor	110,932	91	0.0%	90	40	104.0%		93
Texas	MSA	Amarillo	Potter	173,899	90	0.0%	88	30	104.8%		93
Texas	MSA	Austin	Travis	536,688	98	0.0%	95	90	100.6%		95
Texas	MSA	Beaumont	Jefferson	375,497	94	0.0%	92	34	104.3%		96
Texas		Bridgeport	Wise	26,525	98	0.0%	93			104.1%	97
Texas	MSA	Brownsville, Harlingen	Cameron	209,880	87	0.0%	86	43	103.9%		90
Texas		Cleburne	Johnson	67,649	96	0.0%	93			104.1%	97
Texas	MSA	Corpus Christi	Nueces	326,228	95	0.0%	92	74	101.7%		94
Texas	MSA	Dallas	Dallas	1,967,378	101	0.0%	98	77	101.4%		99
Texas		Dawson	Navarro	35,323	87	0.0%	87			104.1%	90
Texas		Del Rio	Val Verde	35,910	80	0.0%	80			104.1%	84
Texas	MSA	El Paso	El Paso	479,899	93	0.0%	91	55	103.0%		94
Texas		Gainesville	Cooke	27,656	89	0.0%	88			104.1%	91
Texas		Granbury	Hood	17,714	96	0.0%	93			104.1%	97
Texas		Hillsboro	Hill	25,024	87	0.0%	87			104.1%	90
Texas		Honey Grove	Fannin	24,285	89	0.0%	88			104.1%	91
Texas	MSA	Houston	Harris	2,736,766	101	0.0%	97	84	101.0%		98
Texas	MSA	Lubbock	Lubbock	211,651	92	0.0%	90	39	104.1%		94
Texas		Nacogdoches	Nacogdoches	46,786	92	0.0%	90			104.1%	94
Texas	MSA	Odessa	Ector	115,374	93	0.0%	91	41	103.9%		95
Texas		Pampa	Gray	26,386	91	0.0%	90			104.1%	93
Texas	MSA	San Angelo	Tom Greene	84,784	89	0.0%	88	34	103.1%		90
Texas	MSA	San Antonio	Bexar	1,071,954	93	0.0%	91	49	103.4%		94
Texas	MSA	Sherman	Grayson	89,798	93	0.0%	91	41	103.9%		95
Texas	MSA	Texarkana	Bowie	75,301	88	0.0%	87	36	104.6%		91
Texas	MSA	Tyler	Smith	128,366	92	0.0%	90	38	104.2%		94
Texas	MSA	Waco	McLennan	170,755	88	0.0%	87	29	104.9%		91
Texas		White Settlement	Tarran	860,880	93	0.0%	91			104.1%	95
Texas		Whitney	Hill	25,024	87	0.0%	87			104.1%	90
Texas	MSA	Wichita Falls	Wichita	121,082	97	0.0%	94	33	104.3%		98

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Utah		Cedar City	Iron	17,349	95	3.4%	96			100.4%	96
Utah		Ogden	Weber	144,615	96	3.4%	98			100.4%	98
Utah	MSA	Provo	Utah	218,106	92	3.4%	94	93	100.4%		94
Utah	MSA	Salt Lake City	Salt Lake	910,222	95	3.4%	97	97	100.2%		97
Vermont	MSA	Burlington	Chittenden	115,308	97	2.1%	97			103.0%	100
Vermont		Montpelier	Washington	52,393	100	2.1%	99			103.0%	102
Vermont		Rutland	Rutland	58,347	93	2.1%	94			103.0%	96
Vermont		Saint Johnsbury	Caledonia	25,808	89	2.1%	90			103.0%	93
Virginia	MSA	Charlottesville	Indep City	113,868	101	2.4%	100			105.0%	105
Virginia	MSA	Lynchburg	Indep City	141,289	87	2.4%	89	26	105.0%		93
Virginia	MSA	Norfolk	Indep City	1,160,311	93	2.4%	94	80	101.3%		95
Virginia	MSA	Richmond	Indep City	781,311	92	2.4%	93	43	103.7%		96
Virginia	MSA	Roanoke	Indep City	220,393	89	2.4%	90	40	104.0%		94
Virginia		Suffolk	Indep City	47,621	93	2.4%	93			105.0%	98
Virginia		Warrenton	Fauquier	37,889	96	2.4%	96			105.0%	101
Virginia		Winchester	Indep City	20,217	96	2.4%	97			105.0%	101
Washington		Aberdeen	Grays Harbor	68,314	108	0.0%	101			101.4%	102
Washington	MSA	Bellingham	Whatcom	106,701	101	0.0%	98			101.4%	99
Washington	MSA	Bremerton	Kitsap	147,152	101	0.0%	97	80	101.2%		98
Washington		Everett, Index	Snohomish	337,016	104	0.0%	100			101.4%	102
Washington		Pasco	Franklin	35,025	101	0.0%	98			101.4%	99
Washington	MSA	Richland	Benton	144,469	96	0.0%	93	58	102.7%		96
Washington	MSA	Seattle, Bering, Renton	King	1,807,469	107	0.0%	103	135	97.9%		101
Washington	MSA	Spokane	Spokane	341,835	95	0.0%	93	64	102.3%		95
Washington	MSA	Tacoma	Pierce	485,867	101	0.0%	97	78	101.4%		99
Washington	MSA	Vancouver	Clark	192,227	102	0.0%	99			101.4%	100
Washington		Wenatchee	Chelan	45,061	100	0.0%	97			101.4%	98
Washington	MSA	Yakima	Yakima	172,508	97	0.0%	94	77	101.4%		96
West Vir		Beckley	Raleigh	88,821	100	1.7%	98			102.6%	101
West Vir		Bluefield	Mercer	73,870	92	1.7%	92			102.6%	94
West Vir	MSA	Charleston	Kanawha	269,595	95	1.7%	94	82	102.4%		97
West Vir		Clarksburg	Harrison	77,710	98	1.7%	97			102.6%	99
West Vir		Fairmont	Marion	65,789	98	1.7%	97			102.6%	99
West Vir	MSA	Huntington	Cabell	152,856	95	1.7%	95	52	103.0%		98
West Vir	MSA	Parkersburg	Wood	93,627	96	1.7%	95	80	102.6%		98

Table 2. Consumption, State Income Tax Rate, Cost of Living, Value of Amenities, and Equilibrium Wages by City, 1985-87.

All indexes are based on a U.S. population weighted average = 100.

State		City or Urban Area	County	MSA or County Population	COST OF CONSUMPTION INDEX	STATE INCOME TAX RATE	COST OF LIVING INDEX	VALUE OF AMENITIES Site Index	% Adjustment Actual	% Adjustment Est	EQUILIBRIUM WAGES (CLI x % Adj)
Wisconsin	MSA	Eau Claire	Eau Claire	130,932	98	2.4%	97			102.4%	99
Wisconsin		Fond Du Lac	Fond Du Lac	89,952	94	2.4%	95			102.4%	97
Wisconsin	MSA	Green Bay	Brown	175,280	96	2.4%	95	82	102.4%		97
Wisconsin	MSA	Janesville	Rock	139,420	87	2.4%	89	35	104.4%		93
Wisconsin	MSA	La Crosse	La Crosse	91,056	94	2.4%	95			102.4%	97
Wisconsin	MSA	Madison	Dane	323,545	100	2.4%	100	86	100.8%		100
Wisconsin		Marinette	Marinette	39,314	95	2.4%	95			102.4%	97
Wisconsin	MSA	Milwaukee	Milwaukee	1,397,143	107	2.4%	105	92	100.8%		106
Wisconsin		Rhinelander	Oneida	31,216	98	2.4%	98			102.4%	101
Wisconsin		Rice Lake	Barron	38,730	96	2.4%	97			102.4%	99
Wisconsin	MSA	Sheboygan	Sheboygan	100,935	95	2.4%	95			102.4%	97
Wisconsin	MSA	Wausau	Marathon	111,270	91	2.4%	92			102.4%	95
Wyoming	MSA	Casper	Natrona	71,856	95	0.0%	92	97	100.2%		93
Wyoming	MSA	Cheyenne	Laramie	68,649	102	0.0%	99			100.2%	99
Wyoming		Gillette	Campbell	24,367	102	0.0%	98			100.2%	99
Wyoming		Rock Spring	Sweetwater	41,723	100	0.0%	96			100.2%	97
Wyoming		Sheridan	Sheridan	25,048	99	0.0%	96			100.2%	96
Wyoming		Thermopolis	Hot Springs	5,710	101	0.0%	98			100.2%	98
UNITED STATES		563 cities		143730.634							

Table 3. Cost of Consumption and Components, 1986

Note: See last page of table 3 for consumption formulas and estimation accuracy levels.

State		City or Urban Area	County	MSA or County Population	---CONSUMPTION--- Population Weighted	City Average	Annual property costs	New const costs	ACCRA data Food	Utilities	Transportation	Health	Misc.	Estimation Accuracy Level
Alabama	MSA	Anniston, Bynum	Calhoun	119,761	85	89	87	85	99.0	103.1	89.1	86.5	98.2	1
Alabama		Ashland	Clay	13,703	88	92		85		103				4
Alabama	MSA	Birmingham	Jefferson	883,946	90	94	70	85	96.1	102.7	108.6	102.9	98.3	1
Alabama		Brent	Bibb	15,723	88	92		85		103				4
Alabama	MSA	Dothan	Houston	122,453	91	94		91	98.5	103.6	98.8	75.4	88.9	2
Alabama	MSA	Florence	Lauderdale	135,065	84	88	72	89	97.5	104.5	83.6	87.7	92.8	1
Alabama	MSA	Gadsden	Etowah	103,057	85	89	69	88	94.6	101.1	93.8	89.4	94.8	1
Alabama	MSA	Huntsville	Madison	196,966	89	92	69	84	96.1	77.9	115.5	94.1	98.5	1
Alabama	MSA	Mobile	Mobile	443,536	91	94	77	93	96.8	106.2	99.8	89.8	101.3	1
Alabama	MSA	Montgomery	Montgomery	272,687	89	93	70	84	107.6	104.5	89.6	94.7	103.8	1
Alabama		Munford	Talladega	73,826	88	92		85		103				4
Alabama		Selma	Dallas	26,684	89	92		86		103				4
Alabama	MSA	Tuscaloosa	Tuscaloosa	137,541	85	89	69	85		103				3
Alaska	MSA	Anchorage	Anchorage	174,431	138	144	188	158	126.6	98.0	130.1	184.9	135.6	1
Alaska		Fairbanks	Fairbanks	22,645	138	144		159	125.5	136.1	134.3	234.5	135.0	2
Alaska		Juneau	Juneau	19,528	137	143		157	131.4	140.0	135.4	215.1	130.6	2
Arizona		Casa Grande	Pinal	90,918	95	98		97		80				4
Arizona		Douglas	Cochise	80,717	95	99		98		80				4
Arizona		Flagstaff	Coconino	74,947	102	106		109		80				4
Arizona		Kingman	Mohave	55,693	89	93		88		80				4
Arizona	MSA	Phoenix	Maricopa	1,509,052	99	103	101	105	99.0	100.4	103.3	128.5	103.0	1
Arizona		Prescott	Yavapai	68,145	101	105		108		80				4
Arizona	MSA	Tucson	Pima	531,443	92	96	93	98	99.2	73.7	100.9	107.0	99.3	1
Arizona		Yuma	Yuma	90,554	103	107		111		80				4
Arkansas		Batesville	Independence	30,147	78	82		88		100				4
Arkansas		Blytheville	Mississippi	59,517	87	91		84		100				4
Arkansas		El Dorado	Union	49,988	89	92		86		100				4
Arkansas	MSA	Fayetteville	Washington	100,494	86	89	75	81	97.5	100.8	94.7	75.3	90.0	1
Arkansas		Forest City	St. Francis	30,858	87	91		84		100				4
Arkansas	MSA	Fort Smith	Sebastian	131,822	87	91	79	86	99.2	86.0	92.9	88.2	98.7	1
Arkansas		Hot Springs	Garland	69,916	88	92		85		100				4
Arkansas		Jonesboro	Craighead	63,916	87	91		83	92.6	105.3	87.7	86.1	93.7	2
Arkansas	MSA	Little Rock	Pulaski	474,484	91	95	85	88		100				3
Arkansas	MSA	Pine Bluff	Jefferson	90,718	87	91	81	85	99.6	101.0	83.3	98.4	95.9	1
Calif	MSA	Bakersfield	Kern	403,089	102	106	112	118		85				3
Calif		Bishop	Inyo	17,895	110	115		123		85				4
Calif	MSA	Chico	Butte	143,851	105	110	121	119	104.0	93.3	112.7	128.7	101.8	1
Calif		Eureka	Humboldt	108,525	108	113		120		85				4
Calif		Fairfield, Vacavle, Elmra	Solano	235,203	112	117	139	127		85				3

Table 3. Cost of Consumption and Components, 1986

Note: See last page of table 3 for consumption formulas and estimation accuracy levels.

State		City or Urban Area	County	MSA or County Population	---CONSUMPTION--- Population Weighted	City Average	Annual property costs	New const costs	ACCRA data: Food	Utilities	Transportation	Health	Misc.	Estimation Accuracy Level
Calif	MSA	Fresno	Fresno	515,013	106	110	127	127	103.3	83.3	106.1	122.5	106.8	1
Calif	MSA	Los Angeles (1)	Los Angeles	7,477,421	111	116	154	128	95.2	106.4	106.1	116.2	103.4	1
Calif		Marysville	Yuba	49,733	109	114		122		85				4
Calif		Monterey	Monterey	290,444	113	117		128		85				4
Calif	MSA	Oakland, Newark	Alameda	1,761,751	121	126	161	135		85				3
Calif		Pacifica, El Granada	San Mateo	588,164	116	121		135		85				4
Calif		Palm Springs	Riverside	663,199	105	109		125	100.2	90.5	104.3	131.8	109.2	2
Calif		Placerville	El Dorado	85,812	109	114		122		85				4
Calif	MSA	Redding	Shasta	155,613	105	109	119	118		85				3
Calif		Redwood City, San Bruno	San Mateo	588,164	114	119		130		85				4
Calif	MSA	Sacramento	Sacramento	1,099,814	106	111	127	122	104.3	75.0	112.3	136.7	107.9	1
Calif		Saint Helena, Rutherford	Napa	99,199	112	117		127		85				4
Calif	MSA	Salinas	Monterey	290,444	118	122	153	128		85				3
Calif	MSA	San Bernardino, Barstow	San Bernardino	1,558,182	103	107	124	123	98.1	84.7	111.1	120.3	98.1	1
Calif	MSA	San Diego	San Diego (city)	1,861,846	116	121	163	126	101.5	67.4	129.5	128.2	105.0	1
Calif	MSA	San Francisco	San Francisco	1,488,871	123	128	166	135		85				3
Calif	MSA	San Jose	Santa Clara	1,295,071	113	118	178	131	99.4	55.8	110.5	126.8	101.9	1
Calif		San Luis Obispo	San Luis	155,345	111	115		125		85				4
Calif	MSA	Santa Barbara, Snta Maria	Santa Barbara	298,660	114	119	143	126		85				3
Calif	MSA	Santa Rosa, Bodega	Sonoma	299,827	120	125	160	127		85				3
Calif	MSA	Stockton	San Joaquin	347,342	108	113	129	122		85				3
Calif		Susanville	Lassen	21,861	109	113		121		85				4
Calif	MSA	Visalia	Tulare	245,751	101	105	114	120	97.4	93.8	106.4	108.3	102.8	1
Calif		Winters	Yolo	113,374	109	114		122		85				4
Colorado	MSA	Boulder, Allenspark	Boulder	189,625	98	102		110	103.4	75.4	103.0	119.6	98.6	2
Colorado		Castle Rock	Douglas	25,153	102	106		110		72				4
Colorado		Central City	Gilpin	2,441	102	106		110		72				4
Colorado	MSA	Colorado Springs, Calhan	El Paso	309,424	94	98	108	116	94.9	61.2	106.4	113.0	93.5	1
Colorado	MSA	Denver	Denver	1,428,836	100	104	115	110	102.4	75.4	110.0	108.6	99.8	1
Colorado		Florissant	Teller	8,034	105	110		116		72				4
Colorado	MSA	Fort Collins	Larimer	149,184	95	99	104	104	100.1	73.4	103.2	108.1	98.9	1
Colorado		Grand Junction	Mesa	81,530	96	100		102	107.3	71.0	106.8	111.2	98.5	2
Colorado	MSA	Greeley	Weld	123,438	100	104	108	110		72				3
Colorado		La Junta	Otero	22,567	95	99		98		72				4
Colorado		Lake George	Park	5,333	105	110		116		72				4
Colorado		Montrose	Montrose	24,352	98	102		102		72				4
Colorado	MSA	Pueblo	Pueblo	125,972	92	95	101	105	101.2	67.1	96.2	98.8	98.0	1
Colorado		Sterling	Logan	19,800	102	106		109		72				4
Colorado		Strasburg	Adams	245,944	102	106		110		72				4
Colorado		Trinidad	Las Animas	14,897	96	100		99		72				4
Conn	MSA	Hartford	Hartford	807,143	109	113	113	108	105.1	141.8	104.4	128.0	111.7	1
Conn	MSA	New Haven, Waterbury	New Haven	761,325	108	113	122	109	103.1	129.7	102.3	131.1	107.7	1
Conn	MSA	Norwich, New London	New London	238,409	97	101	100	102		136				3

Table 3. Cost of Consumption and Components, 1986

Note: See last page of table 3 for consumption formulas and estimation accuracy levels.

State		City or Urban Area	County	MSA or County Population	---CONSUMPTION--- Population Weighted	City Average	Annual property costs	New const costs	ACCRA data: Food	Utilities	Transportation	Health	Misc.	Estimation Accuracy Level
Conn	MSA	Stamford, Bdgeprt, Grnwch	Fairfield	807,143	109	114	131	120		136				3
Conn		Torrington	Litchfield	156,769	100	104		105		136				4
Delaware		Dover	Kent	98,219	93	97		104	94.9	86.7	94.7	94.9	98.4	2
Delaware	MSA	Wilmington	New Castle	399,002	98	102	99	105	103.2	107.9	101.1	104.2	103.8	1
Dist Col	MSA	Washington, D. C.	Dist Columbia	638,432	105	109	120	101		100				3
Florida		Cocoa	Brevard	272,959	94	98	92	91		109				3
Florida	MSA	Daytona Beach	Volusia	258,762	91	95	85	90		109				3
Florida	MSA	Fort Lauderdale	Broward	1,018,257	100	104	103	94	103.0	99.1	100.1	116.3	108.6	1
Florida	MSA	Fort Myers	Lee	250,266	91	95	84	90		109				3
Florida	MSA	Fort Pierce	Saint Lucie	151,196	93	97		94		109				4
Florida	MSA	Gainesville	Alachua	171,371	91	95	87	90	95.7	86.8	99.5	106.6	100.2	1
Florida	MSA	Jacksonville	Duval	722,252	90	94	81	89		109				3
Florida	MSA	Lakeland	Polk	321,652	91	95	79	92	96.3	109.4	98.6	93.3	101.4	1
Florida	MSA	Miami	Dade	1,625,611	103	107	99	94	102.0	110.4	111.7	126.3	109.7	1
Florida	MSA	Naples	Collier	85,791	92	96		92		109				4
Florida	MSA	Orlando	Orange	700,055	97	101	88	90	101.7	115.1	99.1	112.8	106.8	1
Florida	MSA	Panama City	Bay	97,740	87	91		84		109				4
Florida	MSA	Pensacola	Escambia	299,782	88	91	77	89	92.4	93.7	97.8	94.3	97.0	1
Florida		Saint Petersburg	Pinellas	728,409	92	96		92		109				4
Florida	MSA	Sarasota	Saarasota	202,251	95	99	97	92	95.2	96.1	102.5	95.4	103.3	1
Florida	MSA	Tallahassee	Leon	190,220	92	95	76	86	91.2	119.5	99.7	107.6	100.7	1
Florida	MSA	Tampa	Hillsborough	1,613,603	91	95	85	92		109				3
Florida	MSA	West Palm Beach	Palm Beach	576,758	105	109	93	94	101.3	138.6	117.6	120.3	106.3	1
Georgia	MSA	Albany	Doughtery	112,402	85	89	79	90	93.4	88.0	93.7	84.2	92.8	1
Georgia	MSA	Athens	Clarke	130,015	90	94		74	96.4	122.2	92.7	87.4	101.2	2
Georgia	MSA	Atlanta	Fulton	2,138,231	95	99	82	93	100.8	126.7	97.7	108.7	102.1	1
Georgia	MSA	Augusta	Richmond	240,293	90	94	78	90	96.3	114.6	94.1	93.7	99.3	1
Georgia		Brunswick	Glynn	54,981	93	96		93		110				4
Georgia		Calhoun	Gordon	30,070	91	95		89	98.9	104.9	89.3	80.0	102.2	2
Georgia		Carters	Murray	19,685	90	94		89		110				4
Georgia	MSA	Columbus	Muscogee	191,840	84	87	68	79	98.4	96.0	90.5	76.2	95.9	1
Georgia		Covington, New Born	Newton	34,849	92	96		92		110				4
Georgia		Dublin	Laurens	36,990	88	92		85		110				4
Georgia		Gainesville	Hall	75,649	82	86		75		110				4
Georgia		Griffin	Spalding	47,899	92	96		92		110				4
Georgia		Hogansville	Troup	50,003	92	96		92		110				4
Georgia		Jackson	Butts	3,685	92	96		92		110				4
Georgia	MSA	Macon	Bibb	283,591	90	94	74	84	100.8	122.7	92.2	88.4	97.1	1
Georgia		Milner	Lamar	12,215	87	91		84		110				4
Georgia		Newnan	Coweta	39,268	92	96		92		110				4

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Table 3. Cost of Consumption and Components, 1986

Note: See last page of table 3 for consumption formulas and estimation accuracy levels.

State		City or Urban Area	County	MSA or County Population	---CONSUMPTION--- Population Weighted	City Average	Annual property costs	New const costs	ACCRA data: Food	Utilities	Transportation	Health	Misc.	Estimation Accuracy Level
Georgia		Rome	Floyd	79,800	96	100		89	104.6	104.0	96.3	94.3	110.9	2
Georgia	MSA	Savannah	Chatham	220,553	94	98	91	97		110				3
Georgia		Valdosta	Lowndes	67,972	80	83		71		110				4
Georgia		Waycross	Ware	371,160	82	85		74		110				4
Georgia		Zebulon	Pike	8,937	92	96		92		110				4
Hawaii	MSA	Honolulu	Honolulu	762,874	123	128	166	131		145				3
Idaho	MSA	Boise	Ada	173,125	100	104	92	97	100.2	71.1	103.7	126.8	134.8	1
Idaho		Idaho Falls	Bonneville	65,980	95	99		98		69				4
Idaho		Kellogg	Shoshone	19,226	101	105		108		69				4
Idaho		Lewiston	Nez Perce	33,220	100	104		105		69				4
Idaho		Pocatello	Bannock	65,421	96	100		99		69				4
Idaho		Twin Falls	Twin Falls	52,927	91	95		102	92.9	66.0	99.7	101.9	97.1	2
Illinois	MSA	Alton	Madison	268,229	101	105		108		106				4
Illinois	MSA	Aurora	Kane	315,607	103	107	115	109		106				3
Illinois		Carbondale	Jackson	61,649	96	100		100		106				4
Illinois		Centralia	Marion	43,523	99	103		104		106				4
Illinois	MSA	Champaign	Champaign	168,392	99	103	104	104	102.0	107.2	100.9	105.5	101.3	1
Illinois	MSA	Chicago (2)	Cook	6,060,387	103	107	115	108		106				3
Illinois		Freeport	Stephenson	49,536	102	106		110		106				4
Illinois		Galesburg	Knox	61,607	102	106		110		106				4
Illinois		Glen Ellyn	Du Page	658,858	100	104		107		106				4
Illinois	MSA	Joliet	Will	355,042	104	108	118	113		106				3
Illinois	MSA	Kankakee	Kankakee	102,926	102	106		109		106				4
Illinois		Mattoon	Coles	52,992	98	102		102		106				4
Illinois		Olney	Richland	17,587	96	100		100		106				4
Illinois	MSA	Peoria	Peoria	365,864	101	105	114	108	98.6	104.6	109.3	97.3	97.1	1
Illinois		Quincy	Adams	71,622	91	95		98	91.1	106.4	88.6	92.4	95.4	2
Illinois	MSA	Rock Island, Moline	Rock Island	279,514	100	104	107	105		106				3
Illinois		Rockford	Winnebago	254,884	102	106	102	110	104.6	127.0	102.1	107.2	104.6	1
Illinois	MSA	Springfield	Sangamon	187,789	96	100	106	103	95.2	90.5	104.1	100.8	98.1	1
Illinois		Waukegon	Lake	440,388	103	107		111		106				4
Indiana	MSA	Bloomington	Monroe	119,149	96	100		100	102.5	111.0	94.1	99.6	97.5	2
Indiana	MSA	Evansville	Vanderburgh	235,403	95	99	95	108		94				3
Indiana	MSA	Fort Wayne	Allen	354,156	90	94	88	100	102.5	91.1	94.3	82.2	96.7	1
Indiana	MSA	Gary	Lake	642,781	97	101	98	108		94				3
Indiana		Greensburg	Henry	53,336	97	101		101		94				4
Indiana	MSA	Indianapolis	Marion	1,166,575	95	99	100	111	97.2	96.6	105.5	96.8	94.5	1
Indiana	MSA	Kokomo	Howard	103,715	93	97	89	101		94				3
Indiana	MSA	Lafayette	Tippecanoe	121,702	90	94	82	97		94				3

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Table 3. Cost of Consumption and Components, 1988

Note: See last page of table 3 for consumption formulas and estimation accuracy levels.

State		City or Urban Area	County	MSA or County Population	---CONSUMPTION--- Population Weighted	City Average	Annual property costs	New const costs	ACCRA data: Food	Utilities	Transportation	Health	Misc.	Estimation Accuracy Level
Indiana	MSA	Muncie	Delaware	128,587	92	96	87	100		94				3
Indiana		New Albany	Floyd	61,205	93	96		93		94				4
Indiana		Richmond	Wayne	76,058	101	105		108		94				4
Indiana	MSA	South Bend	Saint Joseph	241,617	89	93	88	100	95.4	90.9	92.1	85.1	97.7	1
Indiana	MSA	Terre Haute	Vigo	137,247	98	102		102		94				4
Iowa		Burlington	Des Moines	46,775	96	100		100		94				4
Iowa	MSA	Cedar Rapids	Linn	169,775	93	97	98	97	91.4	93.0	99.8	92.6	101.3	1
Iowa		Council Bluffs	Pottawattamie	86,500	96	100		91	100.1	98.8	111.7	88.8	99.8	2
Iowa		Creston	Union	13,858	93	97		94		94				3
Iowa	MSA	Davenport	Scott	160,022	98	102	101	101		94				3
Iowa	MSA	Des Moines	Polk	367,561	93	97	97	97	89.2	91.0	101.9	101.8	98.4	1
Iowa	MSA	Dubuque	Dubuque	93,745	97	101	99	94		94				3
Iowa		Fort Dodge	Webster	45,953	93	97		100	95.9	86.5	103.2	83.5	94.9	2
Iowa		Marshalltown	Marshall	41,652	90	94		95	88.4	89.8	102.0	85.5	90.4	2
Iowa		Mason City	Cerro Gordo	48,458	92	95		89	91.5	95.1	103.5	90.8	98.3	2
Iowa		Ottumwa	Wapello	40,241	95	98		97		94				4
Iowa	MSA	Sioux City	Woodberry	100,884	91	95	93	93	90.8	99.4	96.2	88.4	97.9	1
Iowa		Spencer	Clay	19,676	88	92		85		94				4
Iowa	MSA	Waterloo	Black Hawk	162,781	95	99	97	99	96.6	112.5	102.5	91.0	92.5	1
Kansas		Arkansas City	Cowley	36,824	88	92		85		95				4
Kansas		Atchison	Atchison	18,397	99	103		104		95				4
Kansas		Colby	Thomas	8,451	88	92		85		95				4
Kansas		Dodge City	Ford	24,315	84	88		79		95				4
Kansas		Emporia	Lyon	35,108	96	100		99		95				4
Kansas		Garden City	Finney	23,825	90	94		84	98.5	103.6	87.6	97.8	102.9	2
Kansas		Great Bend	Barton	31,343	87	91		88	95.2	77.4	94.7	89.6	94.7	2
Kansas		Hays	Ellis	26,098	89	93		88		95				4
Kansas		Independence	Montgomery	42,281	89	93		88		95				4
Kansas	MSA	Kansas City	Wyandotte	519,031	94	98	92	104		95				3
Kansas	MSA	Lawrence	Douglas	67,640	94	98	92	104		95				3
Kansas		Leavenworth	Leavenworth	54,809	99	103		104		95				4
Kansas		Liberal	Seward	17,071	95	99		107	97.3	95.1	96.5	80.7	99.2	2
Kansas		Louisburg	Miami	21,618	99	103		104		95				4
Kansas		Salina	Saline	48,905	88	92		88	92.9	80.5	95.6	91.2	96.1	2
Kansas	MSA	Topeka	Shawnee	154,196	93	97	90	98		95				3
Kansas	MSA	Wichita	Sedgwick	411,313	89	93	81	90	96.4	111.3	89.1	95.5	96.8	1
Kentucky		Ashland	Boyd	55,513	95	99		98		91				4
Kentucky		Bowling Green	Warren	71,826	91	94		82	103.0	90.3	101.0	98.7	95.0	2
Kentucky		Covington	Kenton	137,058	100	104		105		91				4
Kentucky		Elizabethtown	Hardin	88,917	85	88		80		91				4
Kentucky	MSA	Lexington	Fayette	317,629	92	96	89	95	99.5	97.5	96.5	96.9	98.7	1

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Table 3. Cost of Consumption and Components, 1986

Note: See last page of table 3 for consumption formulas and estimation accuracy levels.

State		City or Urban Area	County	MSA or County Population	---CONSUMPTION--- Population Weighted	City Average	Annual property costs	New const costs	----------ACCRA data---------- Food	Utilities	Transportation	Health	Misc.	Estimation Accuracy Level
Kentucky	MSA	Louisville	Jefferson	779,406	90	94	85	92	99.8	97.2	91.7	102.6	96.3	1
Kentucky		Madisonville	Hopkins	46,174	88	91		90	96.6	80.2	93.0	107.7	89.6	3
Kentucky		Middlesboro	Bell	34,330	86	90		82		91				4
Kentucky	MSA	Owensboro	Daviess	85,949	91	95	91	101	100.7	87.6	93.4	102.3	99.2	1
Kentucky		Paducah	McCraken	61,310	93	98		93		91				4
Kentucky		Pikesville	Pike	81,123	96	99		98		91				4
Kentucky		Somerset	Pulaski	45,803	85	89		77	101.9	91.7	90.0	86.9	88.2	2
Louisiana	MSA	Alexandria	Rapides	135,282	90	93	63	81	109.4	110.7	99.7	89.6	98.7	1
Louisiana	MSA	Baton Rouge	East Baton	494,151	88	91	77	93	95.7	98.2	92.1	88.3	100.2	1
Louisiana		Bogalusa	Washington	44,207	95	99		98		111				4
Louisiana		Gonzales	Ascension	50,068	92	96		93		111				4
Louisiana		Hammond	Tangipahoa	80,698	90	94		89		111				4
Louisiana	MSA	Houma	Terrebonne	176,878	92	96		92		111				4
Louisiana		Lafayette	Lafayette	190,231	95	99		92	97.2	111.8	100.2	94.1	101.6	2
Louisiana	MSA	Lake Charles	Calcasieu	167,223	95	98	81	98	101.8	116.7	104.7	94.4	99.1	1
Louisiana		Metairie, Gretna	Jefferson	454,592	94	98		95		111				4
Louisiana	MSA	Monroe	Ouachita	139,241	89	93	69	89	97.9	119.6	97.5	106.3	95.2	1
Louisiana		New Iberia	Iberia	63,752	93	96		93		111				4
Louisiana	MSA	New Orleans	New Orleans	1,256,256	94	98	95	95	94.9	110.7	98.4	95.0	98.1	1
Louisiana		Port Sulphur	Plaquemines	26,049	94	98		95		111				4
Louisiana		Reserve	St. John Baptist	31,924	94	98		95		111				4
Louisiana	MSA	Shreveport	Caddo	333,079	92	96	79	92	104.1	106.8	100.7	93.1	99.4	1
Maine		Augusta	Kennebec	109,889	94	98		95		89				4
Maine	MSA	Bangor	Penobscot	137,015	92	96	87	89		89				3
Maine		Machias	Washington	34,963	95	98		97		89				4
Maine	MSA	Portland	Cumberland	215,789	97	101	98	100	102.9	89.3	101.1	96.2	111.8	1
Maine		Presque Isle	Aroostook	91,344	94	98		95		89				4
Maryland		Annapolis, Glen Burnie	Ann Arundel	370,775	98	102		102		97				4
Maryland	MSA	Baltimore	Independent City	2,199,531	103	107	116	104	101.5	97.3	108.3	106.4	103.8	1
Maryland		Cambridge	Dorchester	30,623	94	98		95		97				4
Maryland	MSA	Cumberland	Allegany	80,548	98	102		102		97				4
Maryland		Easton	Talbot	25,604	92	96		92		97				4
Maryland		Edgewood	Harford	145,930	99	103		104		97				4
Maryland	MSA	Hagerstown	Washington	113,086	95	99	94	100		97				3
Maryland		Randallstown, Reisterstwn	Baltimore	655,615	99	103		104		97				4
Maryland		Salisbury	Wicomico	645,5[illegible]	94	98		95		97				4
Maryland		Silver Springs	Montgomery	579,0[illegible]	98	102		103		97				4
Mass	MSA	Boston, Lexington, Milton	Suffolk	2,805,911	111	116	136	126		140				3
Mass	MSA	Brockton	Plymouth	405,437	104	108	116	112		140				3

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Table 8. Cost of Consumption and Components, 1988

Note: See last page of table 8 for consumption formulas and estimation accuracy levels.

State		City or Urban Area	County	MSA or County Population	---CONSUMPTION--- Population Weighted	City Average	Annual property costs	New const costs	ACCRA data Food	Utilities	Transportation	Health	Misc.	Estimation Accuracy Level
Mass		Concord	Middlesex	205055	111	116		126		140				4
Mass		Hyannis	Barnstable	147,928	104	109		113		140				4
Mass	MSA	Lowell	Middlesex	1,161,979	104	108		112		140				4
Mass		Lynn	Essex	424,544	111	116		126		140				4
Mass	MSA	New Bedford	Bristol	474,641	103	107		111		140				4
Mass		Norwood	Norfolk	606,587	111	116		126		140				4
Mass	MSA	Pittsfield	Berkshire	145,110	96	100		100		140				4
Mass	MSA	Salem	Essex	258,178	102	106		110		140				4
Mass	MSA	Springfield	Hampden	515,259	94	98	92	107		140				5
Mass	MSA	Worcester, Ftchbrg, Wbstr	Worcester	646,352	103	108		112	97.6	140.2	107.0	104.2	93.6	2
Michigan		Alpena	Alpena	32,315	97	101		101		100				4
Michigan	MSA	Ann Arbor	Washtenaw	264,740	109	113		121		100				4
Michigan		Charlotte	Eaton	88,337	95	99	94	108		100				3
Michigan		Clinton, Adrian	Lenawee	89,948	109	113		121		100				4
Michigan	MSA	Detroit	Wayne	4,488,072	111	116	137	121		100				3
Michigan	MSA	Flint, Fenton, Goodrich	Genesee	450,449	104	108	118	114		100				3
Michigan	MSA	Grand Rapids	Kent	601,680	98	102	101	100		100				3
Michigan		Hamburg	Livingston	100,289	109	113		121		100				4
Michigan		Imlay City, Hadley	Lapeer	70,038	105	109		114		100				4
Michigan		Ironwood	Gogebic	19,686	94	98		95		100				4
Michigan	MSA	Kalamazoo	Kalamazoo	212,378	101	106	104	103	98.1	101.6	112.0	120.6	104.7	1
Michigan	MSA	Lansing	Ingham	419,750	104	109	118	108	101.0	88.5	118.3	121.0	103.6	1
Michigan		Marquette	Marquette	74,101	97	101		94	103.9	101.3	104.9	134.8	95.9	2
Michigan	MSA	Muskegon	Muskegon	157,589	96	100		99		100				4
Michigan		Petersburg, Luna Pier	Monroe	134,659	109	113		121		100				4
Michigan		Petosky	Emmet	22,992	95	99		98		100				4
Michigan		Port Huron	Saint Clair	138,802	102	106		109		100				4
Michigan		Portland	Ionia	51,815	101	105		108		100				4
Michigan		Saint Johns	Clinton	55,893	101	105		108		100				4
Michigan		Sault Sainte Marie	Chippewa	29,029	96	100		99		100				4
Michigan		Stockbridge	Ingham	272,437	101	105		108		100				4
Michigan		Traverse City	Grand	54,899	102	106		101	102.2	98.9	106.7	115.3	114.9	2
Minnesota		Brainerd	Crow Wing	41,722	95	99		98		113				4
Minnesota		Chanhassen	Carver	37,046	105	109		114		113				4
Minnesota	MSA	Duluth, Virginia	St. Louis	222,229	96	100	96	107		113				3
Minnesota		Hutchinson	McLeod	29,657	105	109		114		113				4
Minnesota		Mankato	Blue Earth	52,314	94	98		95		113				4
Minnesota	MSA	Minneapolis	Hennipin	2,093,261	102	106	111	114		113				3
Minnesota		Montevideo	Chippewa	14,941	89	93		88		113				4
Minnesota		Northfield	Rice	48,087	105	109		114		113				4
Minnesota		Owatonna	Steele	30,328	98	102		103		113				4
Minnesota		Princeton	Mille Lacs	18,430	98	102		102		113				4
Minnesota	MSA	Rochester	Olmsted	92,006	97	101	98	103		113				3

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Table 3. Cost of Consumption and Components, 1986

Note: See last page of table 3 for consumption formulas and estimation accuracy levels.

State		City or Urban Area	County	MSA or County Population	---CONSUMPTION--- Population Weighted	City Average	Annual property costs	New const costs	----------ACCRA data---------- Food	Utilities	Transportation	Health	Misc.	Estimation Accuracy Level
Minnesota	MSA	Saint Cloud, Kimball Pre	Sterne	165,256	97	101	90	102	98.4	117.1	103.7	99.5	103.9	1
Minnesota		Saint Paul	Ramsey	459,784	103	107		114	96.6	107.9	118.4	101.3	96.4	2
Minnesota		Winona	Winona	46,256	98	102		103		113				4
Minnesota		Winthrop	Sibley	16,466	94	98		95		113				4
Miss		Clarksdale	Coahoma	36,918	87	91		84		96				4
Miss		Columbus	Lowndes	67,304	84	87		77		96				4
Miss		Greenville	Washington	73,344	87	90		83		96				4
Miss		Greenwood	Leflore	41,536	83	86		76		96				4
Miss		Gulfport	Harrison	157665	92	96	79	91	100.8	95.9	106.6	87.1	100.1	1
Miss		Hattiesburg	Forrest	66,018	93	97		94		96				4
Miss	MSA	Jackson	Hinds	362,038	90	93	80	90		96				3
Miss		Meridian	Lauderdale	77,265	84	87		77		96				4
Miss		Natchez	Adams	36,071	84	87		77		96				4
Miss		Tupelo	Lee	67,061	88	92		85		96				4
Missouri		Cape Girardeau	Cape Girardeau	56,857	94	98		95		82				4
Missouri		Chillicothe	Livingston	15,739	93	96		93		82				4
Missouri		Clinton	Henry	19,672	93	96		102	95.5	99.3	92.5	77.9	96.3	2
Missouri	MSA	Columbia	Boone	100,376	89	93	90	98	95.4	67.6	103.7	96.5	96.6	1
Missouri		Farmington, Bismark	Saint Francois	42,600	100	104		105		82				4
Missouri		Hannibal	Marion	28,638	96	100		99		82				4
Missouri		Hermann, Owensville	Gasconade	13,181	95	99		98		82				4
Missouri		Jefferson City	Cole	56,663	84	88		97	85.4	82.5	81.5	82.9	90.0	2
Missouri	MSA	Joplin	Jasper	127,513	87	90	81	97	85.6	86.7	99.2	89.4	95.7	1
Missouri	MSA	Kansas City, Independence	Jackson	914,437	94	98	90	102	104.6	86.7	100.7	106.2	103.0	1
Missouri		Kirksville	Adair	24,870	87	90		91	95.5	90.6	82.6	87.3	92.7	2
Missouri		Montgomery City, Mgh Hill	Montgomery	11,537	95	99		98		82				4
Missouri		New Hartford	Pike	17,568	96	100		100		82				4
Missouri		Plattsburg	Clinton	15,916	98	102		102		82				4
Missouri		Poplar Bluff	Butler	37,693	92	95		97	103.1	82.3	102.2	87.2	88.3	2
Missouri		Potasi	Washington	17,983	96	100		100		82				4
Missouri		Rolla	Phelps	33,633	96	100		100		82				4
Missouri	MSA	Saint Joseph	Buchanan	87,886	87	90	84	98	97.1	80.5	91.0	100.0	94.0	1
Missouri	MSA	Saint Louis	Independent City	1,788,483	94	98	96	105	99.1	102.8	96.8	102.7	98.1	1
Missouri	MSA	Springfield	Greene	187,789	90	93	89	95	100.4	72.2	99.8	86.6	98.1	1
Missouri		Sullivan, Gerald	Franklin	71,233	96	100		100		82				4
Missouri		Warrensburg	Johnson	39,069	98	102		102		82				4
Missouri		West Plains	Howell	28,807	78	81		87		82				4
Montana	MSA	Billings	Yellowstone	108,035	98	102	103	102	108.3	90.8	99.0	111.9	105.2	1
Montana		Butte	Silver Bow	38,092	95	99		98		81				4
Montana	MSA	Great Falls	Cascade	80,696	97	101	101	101	103.6	79.2	103.2	101.6	106.9	1
Montana		Havre	Hill	17,985	98	102		99	106.4	82.5	113.7	99.0	99.5	2

Table 3. Cost of Consumption and Components, 1988

Note: See last page of table 3 for consumption formulas and estimation accuracy levels.

State		City or Urban Area	County	MSA or County Population	---CONSUMPTION--- Population Weighted	City Average	Annual property costs	New const costs	ACCRA data Food	Utilities	Transportation	Health	Misc.	Estimation Accuracy Level
Montana		Helena	Lewis and Clark	43,039	95	99		98		81				4
Montana		Kalispell	Flathead	51,966	98	100		100		81				4
Montana		Miles City	Custer	13,109	96	100		99		81				4
Montana		Missoula	Missoula	76,016	95	99		102	104.2	74.6	95.7	116.0	102.6	2
Nebraska		Columbus	Platte	20,852	89	93		88		82				4
Nebraska		Grand Island	Hall	47,690	85	89		81		82				4
Nebraska		Kearney	Buffalo	34,797	86	89		85	93.8	78.1	93.0	73.4	94.2	2
Nebraska	MSA	Lincoln	Lancaster	192,884	91	95	92	84	93.8	81.8	102.2	87.4	98.3	1
Nebraska		Norfolk	Madison	31,382	91	95		91		82				4
Nebraska		North Platte	Lincoln	36,455	89	93		88		82				4
Nebraska	MSA	Omaha	Douglas	499,407	92	95	99	92	89.2	87.8	98.1	87.3	98.0	1
Nebraska		Scotts Bluff	Scotts Bluff	36,344	87	90		83		82				4
Nevada		Elko	Elko	17,269	107	112		119		87				4
Nevada	MSA	Las Vegas	Clark	463,087	102	106	117	118	104.8	78.7	113.9	110.7	99.4	1
Nevada	MSA	Reno	Washoe	193,623	108	112	130	123	108.4	96.4	107.8	113.4	107.3	1
New Hamp		Claremont	Sullivan	36,063	96	100		99		138				4
New Hamp	MSA	Manchester	Hillsboro	276,608	103	108	116	102		138				3
New Hamp	MSA	Portsmouth	Rockingham	190,345	97	101	106	102		138				3
New Jersey		Asbury Park	Monmouth	503,173	104	109	118	105		137				3
New Jersey	MSA	Atlantic City	Atlantic	276,835	105	109	120	119		137				3
New Jersey		Bridgeton	Cumberland	132,866	107	112	126	118		137				3
New Jersey		Camden, Cherry Hill	Camden	471,650	101	105		108		137				4
New Jersey		Flemington	Hunterdon	87,361	101	105		108		137				4
New Jersey		Hackensack	Bergen	845,385	102	106		109		137				4
New Jersey	MSA	Jersey City	Hudson	556,972	123	128	166	116		137				3
New Jersey		Morristown	Morris	407,630	102	106		110		137				4
New Jersey		New Brunswick, East Brnwk	Middlesex	595,893	113	118	141	112		137				3
New Jersey	MSA	Newark, Orange	Essex	1,878,959	118	123	141	112	107.8	137.2	110.6	147.8	115.8	1
New Jersey		Paterson	Passaic	447,585	110	114	132	108		137				3
New Jersey		Phillipsburg	Warren	84,429	103	107		111		137				4
New Jersey		Toms River	Ocean	346,038	102	106		110		137				4
New Jersey	MSA	Trenton	Mercer	307,863	109	113	130	105		137				3
New Jersey		Wildwood	Cape May	82,266	107	111		118		137				4
New Mexico	MSA	Albuquerque	Bernalillo	420,261	98	100	99	95	103.1	81.8	107.0	97.4	100.7	1
New Mexico		Clovis	Curry	42,019	98	100		102	113.9	99.0	95.3	101.9	92.4	2
New Mexico		Farmington	San Juan	80,833	98	102		102		82				4
New Mexico		Gallup	McKinley	56,536	96	100		99		82				4

Table 3. Cost of Consumption and Components, 1986

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New Mexico		Hobbs	Lea	55,634	98	102		102		82				4
New Mexico	MSA	Las Cruces	Dona Ana	96,340	93	96	88	94		82				3
New Mexico		Roswell	Chaves	51,103	91	95		97	101.5	70.6	96.1	94.6	97.7	2
New Mexico	MSA	Santa Fe	Santa Fe	75,519	95	98		97		82				4
New York	MSA	Albany	Albany	835,800	103	107	107	103	104.7	116.6	105.9	100.7	105.1	1
New York	MSA	Binghamton	Broome	263,460	99	103	100	99	97.3	125.4	100.0	100.4	102.9	1
New York	MSA	Buffalo	Erie	1,015,472	102	106	113	108	106.3	107.1	107.1	93.7	99.4	1
New York	MSA	Elmira	Chemung	97,656	99	103		102	100.7	139.4	90.8	91.4	101.5	2
New York	MSA	Glen Falls	Warren	109,649	97	101		98	104.6	121.6	97.4	80.2	96.8	2
New York		Jamestown	Chautaugua	146,925	99	103		104		121				4
New York		Kingston	Ulster	158,158	101	105		108		121				4
New York	MSA	Nassau	Rensselaer	2,605,813	112	116	137	116		121				3
New York	MSA	New York	Manhatten	8,274,961	130	136	165	138	108.1	180.1	118.8	156.8	113.3	1
New York		Plattsburgh	Clinton	80,750	95	99		98		121				4
New York		Potsdam	Saint Lawrence	114,347	99	103		104		121				4
New York	MSA	Poughkeepsie	Dutchess	245,055	102	107	113	108		121				3
New York	MSA	Rochester	Monroe	971,230	100	104	108	104		121				3
New York		Schenectady	Schenectady	149,946	101	105		102	105.7	118.9	99.9	105.7	104.5	2
New York	MSA	Syracuse	Onondaga	642,971	99	104	119	113	102.1	121.1	93.5	90.4	90.8	1
New York	MSA	Utica	Oneida	320,160	98	102		103		121				4
New York		Watertown	Jefferson	88,151	99	103		104		121				4
New York		White Plains, Rye	Westchester	866,599	113	117		128		121				4
North Car	MSA	Asheville	Buncombe	160,934	79	82	64	73	92.8	97.0	74.4	89.2	95.5	1
North Car	MSA	Charlotte	Mecklenberg	864,727	92	96		92	98.5	98.3	92.7	97.7	100.5	2
North Car	MSA	Fayetteville	Cumberland	247,160	85	89		81		98				4
North Car		Goldsboro	Wayne	97,054	81	84		73		98				4
North Car	MSA	Greensboro	Guilford	851,851	87	90	73	84	98.2	98.0	92.7	91.9	97.0	1
North Car		Lenoir	Caldwell	67,746	82	85		74		98				4
North Car		New Bern	Craven	71,074	83	86		76		98				4
North Car	MSA	Raleigh	Wake	561,222	89	92	74	81	98.2	97.9	100.8	100.8	94.8	1
North Car		Rocky Mount	Edgecombe	55,988	88	91		82	97.4	99.4	86.4	95.2	96.8	2
North Car	MSA	Wilmington	New Hanover	103,471	86	90	74	84	98.5	94.6	91.5	88.4	98.6	1
North Car		Winston-Salem	Forsyth	243,704	89	93		89	91.8	97.5	90.0	87.7	98.8	2
North Dak	MSA	Bismark	Burleigh	79,988	98	102	101	98		116				3
North Dak		Devils Lake	Ramsey	13,048	91	95		91		116				4
North Dak	MSA	Fargo	Cass	88,247	93	97	89	90		116				3
North Dak	MSA	Grand Forks	Grand Forks	66,100	97	101	91	89	103.8	116.5	98.8	94.8	103.7	1
North Dak		Jamestown	Stutsman	24,154	88	92		85		116				4
North Dak		Minot	Ward	58,392	93	97		94		116				4
North Dak		Williston	Williams	22,237	88	92		85		116				4

Table 3. Cost of Consumption and Components, 1986

Note: See last page of table 3 for consumption formulas and estimation accuracy levels.

State		City or Urban Area	County	MSA or County Population	---CONSUMPTION--- Population Weighted	City Average	Annual property costs	New const costs	ACCRA data Food	Utilities	Transportation	Health	Misc.	Estimation Accuracy Level
Ohio	MSA	Akron	Summit	660,328	96	100	101	111	94.0	117.8	98.1	101.1	95.8	1
Ohio		Athens	Athens	56,399	95	99		98		104				4
Ohio	MSA	Canton	Stark	404,421	85	89	93	108	86.1	94.9	85.6	88.6	87.3	1
Ohio	MSA	Cincinnati	Hamilton	1,100,962	96	100	98	108	101.6	113.5	98.8	92.4	97.5	1
Ohio	MSA	Cleveland, North Olmsted	Cuyahoga	1,898,825	101	105	115	119	90.7	102.3	107.3	109.6	102.3	1
Ohio	MSA	Columbus	Franklin	1,243,833	100	104	104	109	108.4	113.5	101.2	95.2	101.1	1
Ohio	MSA	Dayton, Brokvile, Grantwn	Montgomery	942,083	96	100	96	105	96.5	102.1	102.6	92.1	106.4	1
Ohio		Decatur	Brown	31,920	97	101	100	105		104				3
Ohio		Eaton	Preble	38,223	96	100		100		104				4
Ohio	MSA	Elyria	Lorain	274,909	101	105	110	119		104				3
Ohio		Lewisburg	Logan	39,155	101	105		108		104				4
Ohio	MSA	Lima	Allen	154,795	92	96	94	105	94.6	102.6	96.2	92.0	96.1	1
Ohio	MSA	Mansfield	Richland	131,205	93	97	90	105		104				3
Ohio		Niles, Cortland, Minrl Rg	Trumbull	241,863	102	106		110		104				4
Ohio		Painesville	Lake	212,801	105	110		116		104				4
Ohio		Polk	Ashland	46,178	100	104		105		104				4
Ohio		Portsmouth	Scioto	84,545	100	104		105		104				4
Ohio		Sandusky	Erie	79,655	103	107		111		104				4
Ohio		Spring Valley, Xenia	Greene	129,769	100	104		105		104				4
Ohio	MSA	Steubenville	Jefferson	91,564	98	102		103		104				4
Ohio	MSA	Toledo	Lucas	616,864	98	103	103	108		104				3
Ohio	MSA	Youngstown	Mahoning	531,350	90	93	95	110	93.9	105.4	85.4	94.2	92.3	1
Ohio		Zanesville	Muskingum	83,340	98	100		100		104				4
Oklahoma		Ardmore	Carter	43,610	93	97		94		100				4
Oklahoma		Bartlesville	Washington	48,115	95	99		98		100				4
Oklahoma		Clinton	Custer	25,995	96	100		99		100				4
Oklahoma	MSA	Enid	Garfield	62,820	90	94	81	97		100				3
Oklahoma		Hugo	Choctaw	17,203	87	90		83		100				4
Oklahoma	MSA	Lawton	Comanchi	112,456	90	93	80	93		100				3
Oklahoma		McAlester	Pittsburg	40,524	98	102		91	104.6	100.4	103.6	110.1	111.1	2
Oklahoma		Muskogee	Muskogee	67,033	93	97		94		100				4
Oklahoma	MSA	Oklahoma City	Oklahoma	860,969	93	96	91	98	105.5	110.0	89.8	94.1	95.1	1
Oklahoma		Stillwater	Payne	62,435	95	99		98		100				4
Oklahoma	MSA	Tulsa	Tulsa	657,173	97	101	99	103	109.9	96.4	98.2	98.9	103.1	1
Oregon		Astoria	Clatsop	32,489	101	105		108		78				4
Oregon		Bend	Deschutes	62,142	102	106		109		78				4
Oregon	MSA	Eugene	Lane	275,226	106	110	122	105		78				3
Oregon	MSA	Medford	Jackson	132,456	98	102		104	103.2	91.8	97.8	120.3	102.6	2
Oregon		Pendelton	Umatilla	58,861	99	103		104		78				4
Oregon	MSA	Portland	Multanomah	1,105,699	108	112	125	109	110.7	73.1	119.1	139.1	106.0	1
Oregon	MSA	Salem	Marion	249,895	101	105	123	112	99.0	78.3	99.8	127.6	104.9	1
Oregon		The Dalles	Wasco	21,732	100	104		107		78				4

Table 3. Cost of Consumption and Components, 1988

Note: See last page of table 3 for consumption formulas and estimation accuracy levels.

State		City or Urban Area	County	MSA or County Population	---CONSUMPTION--- Population Weighted	City Average	Annual property costs	New const costs	ACCRA data: Food	Utilities	Transportation	Health	Misc.	Estimation Accuracy Level
Penn	MSA	Allentown	Lehigh	552,280	105	110	121	109		121				3
Penn	MSA	Altoona	Blair	136,621	94	98		95	99.1	106.9	91.4	94.7	101.2	2
Penn		Camp Hill	Cumberland	179,625	95	99		98		121				4
Penn		Dayton, Sagamore	Armstrong	77,768	100	104		107		121				4
Penn		DuBois	Clearfield	83,578	98	102		102		121				4
Penn	MSA	Erie, Waterford	Erie	279,780	97	101	104	103	99.2	105.4	100.2	100.7	99.6	1
Penn		Greensburg, Murrysville	Westmoreland	392,184	104	109		113		121				4
Penn	MSA	Harrisburg, Middletown	Dauphin	555,158	100	104	94	99	100.7	120.1	104.5	105.9	107.7	1
Penn		Indiana	Indiana	92,281	100	104		107		121				4
Penn	MSA	Johnstown	Cambria	264,506	100	104		107		121				4
Penn	MSA	Lancaster, Bart, Adamstwn	Lancaster	362,346	98	102	85	91	103.4	124.2	103.5	87.9	108.5	1
Penn		Levittown	Bucks	479,180	109	113		121		121				4
Penn		New Castle, Ellwood City	Lawrence	107,150	103	107		111		121				4
Penn	MSA	Philadelphia	Philadelphia	3,682,450	116	121	131	121	107.0	156.2	110.0	132.0	112.0	1
Penn	MSA	Pittsburgh	Allegheny	2,218,870	98	102	118	113	91.5	93.5	104.1	94.6	97.6	1
Penn		Pott'stown	Montgomery	643,371	109	113		121		121				4
Penn	MSA	Reading	Berks	312,509	103	107	105	108	112.6	140.7	92.2	97.2	105.0	1
Penn	MSA	Scranton	Lackawanna	728,790	96	100	97	101		121				3
Penn		Somerset, Jnrstwn, Ursina	Somerset	81,243	100	104		107		121				4
Penn		Washington	Washington	217,074	99	103		104		121				4
Penn		West Chester, Coatsvle	Chester	316,660	109	113		121		121				4
Penn		Wilkes-Barre	Luzerne	343,079	91	94		100	98.6	122.1	78.3	86.6	88.7	2
Penn	MSA	Williamsport	Lycoming	118,416	96	100		99		121				4
Rhode Is	MSA	Providence	Providence	818,514	106	110	115	107	103.7	128.2	110.7	113.6	98.9	1
South Car	MSA	Anderson	Anderson	133,235	92	96	86	86		102				3
South Car		Beaufort	Beaufort	65,365	91	94		90		102				4
South Car	MSA	Charleston	Charleston	430,462	87	91	73	83		102				3
South Car	MSA	Columbia	Richland	410,088	92	96	75	85	96.1	125.9	97.5	96.1	102.5	1
South Car	MSA	Florence	Florence	110,163	87	91	73	86	95.8	98.2	99.0	76.8	97.2	1
South Car	MSA	Greenville	Greenville	569,066	87	91	70	83	90.1	103.0	97.4	89.5	101.0	1
South Car		Greenwood	Greenwood	57,847	89	92		86		102				4
South Car		Myrtle Beach	Horry	101,419	90	93		79	97.2	101.6	94.3	95.2	100.7	2
South Car		Orangeburg	Orangeburg	82,276	88	92		85		102				4
South Dak		Aberdeen	Brown	36,962	93	97		77	97.5	124.3	109.3	85.3	94.8	2
South Dak		Chamberlain	Brule	5,245	92	96		92		113				4
South Dak		Huron	Beadle	19,195	93	96		93		113				4
South Dak		Pierre	Hughes	14,220	89	93		88		113				4
South Dak	MSA	Rapid City	Pennington	70,133	93	97	88	85	104.6	103.2	99.7	109.2	94.2	1
South Dak	MSA	Sioux Falls	Minnehaha	109,435	95	99	95	91		113				3

Table 3. Cost of Consumption and Components, 1986

Note: See last page of table 3 for consumption formulas and estimation accuracy levels.

State		City or Urban Area	County	MSA or County Population	---CONSUMPTION--- Population Weighted	City Average	Annual property costs	New const costs	----------ACCRA data---------- Food	Utilities	Transpor-tation	Health	Misc.	Estimation Accuracy Level
South Dak		Watertown	Codington	20,885	90	94		89		113				4
South Dak		Yankton	Yankton	18,952	91	94		90		113				4
Tennessee	MSA	Chattanooga	Hamilton	320,761	85	89	73	88	99.2	85.6	98.5	78.2	92.4	1
Tennessee	MSA	Clarksville	Montgomery	83,342	87	91	74	88		91				3
Tennessee		Columbia	Maury	51,095	84	87		77		91				4
Tennessee		Cookeville	Putnam	47,601	86	89		79	99.7	100.4	92.1	89.8	88.7	2
Tennessee		Jackson	Madison	74,546	91	94		83	104.0	85.8	100.2	77.4	100.6	2
Tennessee	MSA	Johnson City	Washington	343,041	89	92	78	89		91				3
Tennessee		Kingsport	Sullivan	143,968	94	97		89	94.4	90.6	111.5	86.8	100.1	2
Tennessee	MSA	Knoxville	Knox	565,970	91	95	79	86	98.5	101.0	106.0	93.5	97.7	1
Tennessee	MSA	Memphis	Shelby	809,860	93	96	91	95	99.5	86.9	102.5	87.2	100.3	1
Tennessee	MSA	Nashville	Davidson	850,505	90	94	72	83	101.4	109.9	98.5	90.3	101.2	1
Tennessee		Union City	Obion	32,781	88	92		85		91				4
Texas	MSA	Abilene	Taylor	110,932	91	95	82	93	105.3	91.9	99.7	91.0	99.3	1
Texas	MSA	Amarillo	Potter	173,699	90	93	87	97	97.5	86.6	92.4	94.6	102.0	1
Texas	MSA	Austin	Travis	536,688	98	102	98	93	106.9	87.5	102.4	108.2	106.5	1
Texas	MSA	Beaumont	Jefferson	375,497	94	98	92	95		91				3
Texas		Bridgeport	Wise	26,525	96	100		99		91				4
Texas	MSA	Brownsville, Harlingen	Cameron	209,680	87	91	78	82	99.5	89.0	99.0	91.6	91.6	1
Texas		Cleburne	Johnson	67,649	96	100		99		91				4
Texas	MSA	Corpus Christi	Nueces	326,228	85	99	93	89		91				3
Texas	MSA	Dallas	Dallas	1,957,378	101	105	100	99	105.6	103.1	110.1	115.0	104.4	1
Texas		Dawson	Navarro	35,323	87	91		84		91				4
Texas		Del Rio	Val Verde	35,910	80	83		71		91				4
Texas	MSA	El Paso	El Paso	479,899	93	97	81	83	104.3	80.7	108.0	101.3	104.3	1
Texas		Gainesville	Cooke	27,656	89	92		86		91				4
Texas		Granbury	Hood	17,714	96	100		99		91				4
Texas		Hillsboro	Hill	25,024	87	91		84		91				4
Texas		Honey Grove	Fannin	24,285	89	92		86		91				4
Texas	MSA	Houston	Harris	2,735,766	101	105	103	94	101.7	108.5	105.2	107.2	107.1	1
Texas	MSA	Lubbock	Lubbock	211,651	92	95	82	89	99.5	90.2	107.4	96.3	97.2	1
Texas		Nacogdoches	Nacogdoches	46,786	92	96		81	105.7	103.0	97.8	87.0	99.6	2
Texas	MSA	Odessa	Ector	115,374	93	97	78	85	105.8	90.8	106.6	97.5	103.8	1
Texas		Pampa	Gray	26,386	91	95		91		91				4
Texas	MSA	San Angelo	Tom Greene	84,784	89	92	78	83		91				3
Texas	MSA	San Antonio	Bexar	1,071,954	93	97	83	88	107.1	100.7	105.2	92.0	94.4	1
Texas	MSA	Sherman	Grayson	89,796	93	97	87	88	103.8	109.9	94.5	90.7	99.9	1
Texas	MSA	Texarkana	Bowie	75,301	88	92	84	90	100.5	85.1	93.7	85.8	95.2	1
Texas	MSA	Tyler	Smith	128,366	92	96	85	88	107.5	91.6	91.2	103.8	103.0	1
Texas	MSA	Waco	McLennan	170,755	88	92	80	84	102.2	91.7	89.7	93.4	98.1	1
Texas		White Settlement	Tarran	560,880	93	97		99	102.6	100.1	88.6	91.4	98.3	2
Texas		Whitney	Hill	25,024	87	91		84		91				4
Texas	MSA	Wichita Falls	Wichita	121,082	97	101	84	94	106.6	116.9	106.4	93.4	101.1	1

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Table 3. Cost of Consumption and Components, 1988

Note: See last page of table 3 for consumption formulas and estimation accuracy levels.

State		City or Urban Area	County	MSA or County Population	---CONSUMPTION--- Population Weighted	City Average	Annual property costs	New const costs	----------ACCRA data---------- Food	Utilities	Transportation	Health	Misc.	Estimation Accuracy Level
Utah		Cedar City	Iron	17,349	95	98		97		84				4
Utah		Ogden	Weber	144,616	96	100		100		84				3
Utah	MSA	Provo	Utah	218,106	92	96	94	97	98.4	79.1	99.9	92.9	100.4	1
Utah	MSA	Salt Lake City	Salt Lake	910,222	96	99	99	98	93.8	88.9	98.2	104.3	108.1	1
Vermont	MSA	Burlington	Chittenden	115,308	97	101		101		138				4
Vermont		Montpelier	Washington	52,393	100	104		102	108.1	145.1	88.9	85.6	99.7	2
Vermont		Rutland	Rutland	58,347	93	97		94		138				4
Vermont		Saint Johnsbury	Caledonia	25,808	89	93		88		138				4
Virginia	MSA	Charlottesville	Indep City	113,868	101	105		108		90				4
Virginia	MSA	Lynchburg	Indep City	141,289	87	90	73	86		90				3
Virginia	MSA	Norfolk	Indep City	1,160,311	93	97	89	92		90				3
Virginia	MSA	Richmond	Indep City	781,311	92	96	85	95	98.8	100.1	92.8	103.7	103.6	1
Virginia	MSA	Roanoke	Indep City	220,393	89	93	77	85	99.8	79.4	105.3	92.3	98.3	1
Virginia		Suffolk	Indep City	47,621	93	96		93		90				4
Virginia		Warrenton	Fauquier	37,889	96	100		99		90				4
Virginia		Winchester	Indep City	20,217	96	100		100		90				4
Washington		Aberdeen	Grays Harbor	66,314	105	109		114		70				4
Washington	MSA	Bellingham	Whatcom	106,701	101	105		108		70				4
Washington	MSA	Bremerton	Kitsap	147,152	101	105	109	116		70				3
Washington		Everett, Index	Snohomish	337,018	104	109		113		70				4
Washington		Pasco	Franklin	35,025	101	105		108		70				4
Washington	MSA	Richland	Benton	144,469	96	99	102	109	96.4	77.6	101.5	138.8	99.4	1
Washington	MSA	Seattle, Baring, Renton	King	1,607,469	107	112	121	113	113.5	86.1	120.0	149.9	112.5	1
Washington	MSA	Spokane	Spokane	341,835	95	99	102	108	99.4	78.2	106.1	112.2	95.1	1
Washington	MSA	Tacoma	Pierce	485,667	101	105	112	114	105.7	84.3	108.4	131.1	111.6	1
Washington	MSA	Vancouver	Clark	192,227	102	106		110		70				4
Washington		Wenatchee	Chelan	45,081	100	105		112	104.8	88.9	111.9	129.6	105.9	2
Washington	MSA	Yakima	Yakima	172,508	97	101	101	104	101.4	96.2	101.8	123.5	97.9	1
West Vir		Beckley	Raleigh	86,821	100	104		105		102				4
West Vir		Bluefield	Mercer	73,870	92	96		92		102				4
West Vir	MSA	Charleston	Kanawha	269,595	95	99	100	113	103.6	87.6	98.1	92.9	100.2	1
West Vir		Clarksburg	Harrison	77,710	98	102		102		102				4
West Vir		Fairmont	Marion	65,789	98	102		102		102				4
West Vir	MSA	Huntington	Cabell	152,856	95	99	101	116	100.1	116.4	88.1	83.5	103.9	1
West Vir	MSA	Parkersburg	Wood	95,627	96	100	97	104		102				3

Table 3. Cost of Consumption and Components, 1988

Note: See last page of table 3 for consumption formulas and estimation accuracy levels.

State		City or Urban Area	County	MSA or County Population	---CONSUMPTION--- Population Weighted	City Average	Annual property costs	New const costs	ACCRA data: Food	Utilities	Transportation	Health	Misc.	Estimation Accuracy Level
Wisconsin	MSA	Eau Claire	Eau Claire	130,932	96	100		100		94				4
Wisconsin		Fond Du Lac	Fond Du Lac	89,952	94	98		102	95.9	89.8	99.5	97.8	97.2	2
Wisconsin	MSA	Green Bay	Brown	175,280	95	99	100	99	96.9	95.9	105.5	89.6	93.2	1
Wisconsin	MSA	Janesville	Rock	139,420	87	91	98	101	92.0	93.6	80.6	86.3	90.9	1
Wisconsin	MSA	La Crosse	La Crosse	91,056	94	98		104	95.1	83.9	101.8	90.3	98.2	2
Wisconsin	MSA	Madison	Dane	323,545	100	104	107	99		94				3
Wisconsin		Marinette	Marinette	39,314	95	98		99	94.1	95.1	108.2	84.0	95.2	2
Wisconsin	MSA	Milwaukee	Milwaukee	1,397,143	107	111	125	109		94				3
Wisconsin		Rhinelander	Oneida	31,216	98	102		103		94				4
Wisconsin		Rice Lake	Barron	38,730	96	100		100		94				4
Wisconsin	MSA	Sheboygan	Sheboygan	100,935	95	96		97		94				4
Wisconsin	MSA	Wausau	Marathon	111,270	91	95		93	89.9	106.5	96.7	90.8	94.5	2
Wyoming	MSA	Casper	Natrona	71,856	95	98	87	100	96.6	95.5	106.2	106.4	104.1	1
Wyoming	MSA	Cheyenne	Laramie	68,649	102	107		106	106.3	87.9	112.5	116.7	106.9	2
Wyoming		Gillette	Campbell	24,367	102	106		107	106.0	99.8	105.9	114.3	107.3	2
Wyoming		Rock Spring	Sweetwater	41,723	100	104		105		96				4
Wyoming		Sheridan	Sheridan	25,048	99	103		104		98				4
Wyoming		Thermopolis	Hot Springs	8,710	101	105		108		96				4

UNITED STATES 583 cities

Accuracy Levels:
#1 182 cities Consumption = .243 x annual property costs + .168 x food + .111 x util + .231 x trans + .043 x health + .205 x misc
#2 61 cities = substitute new construction for annual property costs in above equation
#3 90 cities = .4 x annual prop cost + 61.3
#4 279 cities = .6 x new const cost + 40.5

Utility values without decimal are estimated.

Table 4. Property Ownership Costs by City, 1985
Residential single family home.

Neighborhood location: 42% within city limits but not in city core, 53% suburban, 5% rural.

* Total annual cost = mortgage of 8% interest and principle rate on 80% of property value, plus property taxes.

State	City or Urban Area	SITE PRICE 7,700 sq ft lot $/sq ft	SITE PRICE 7,700 sq ft lot Dollars	CONSTRUCTION COST 1,500 sq ft house $/sq ft	CONSTRUCTION COST 1,500 sq ft house Dollars	PROPERTY VALUE Dollars	PROPERTY TAXES rate Percent	PROPERTY TAXES tax Dollars	TOTAL ANNUAL PROPERTY COST* Dollars	TOTAL ANNUAL PROPERTY COST* Index
Alabama	Anniston, Synum	$0.44	$3,403	$33.65	$50,474	$53,878	0.38%	$207	$3,655	60
Alabama	Ashland			$33.65	$50,474					
Alabama	Birmingham	$0.69	$5,299	$33.65	$50,474	$55,774	0.47%	$263	$3,633	62
Alabama	Brent			$33.65	$50,474					
Alabama	Dothan			$36.86	$53,795					
Alabama	Florence	$0.60	$4,606	$34.98	$52,467	$57,071	0.51%	$289	$3,942	64
Alabama	Gadsden	$0.59	$4,505	$34.54	$51,803	$56,307	0.34%	$190	$3,794	62
Alabama	Huntsville	$0.61	$4,690	$33.21	$49,810	$54,501	0.51%	$278	$3,766	61
Alabama	Mobile	$0.70	$5,405	$36.75	$55,123	$60,529	0.55%	$335	$4,209	69
Alabama	Montgomery	$0.65	$5,007	$33.21	$49,810	$56,317	0.42%	$239	$3,843	63
Alabama	Munford			$33.65	$50,474					
Alabama	Selma			$34.09	$51,139					
Alabama	Tuscaloosa	$0.57	$4,404	$33.65	$50,474	$54,879	0.50%	$272	$3,785	62
Alaska	Anchorage	$5.97	$46,002	$62.43	$93,643	$139,645	0.97%	$1,356	$10,293	168
Alaska	Fairbanks			$62.87	$94,307					
Alaska	Juneau			$61.99	$92,979					
Arizona	Casa Grande			$38.08	$57,116					
Arizona	Douglas			$38.52	$57,780					
Arizona	Flagstaff			$42.95	$64,421					
Arizona	Kingman			$34.54	$51,803					
Arizona	Phoenix	$1.98	$15,238	$41.62	$62,429	$77,667	0.75%	$581	$5,552	91
Arizona	Prescott			$42.50	$63,757					
Arizona	Tucson	$1.68	$12,943	$38.52	$57,780[6]	$70,723	0.85%	$587	$5,113	83
Arizona	Yuma			$43.83	$65,750					
Arkansas	Batesville			$27.01	$40,512					
Arkansas	Blytheville			$33.21	$49,810					
Arkansas	El Dorado			$34.09	$51,139					
Arkansas	Fayetteville	$0.70	$5,364	$31.88	$47,818	$53,181	1.32%	$704	$4,108	67
Arkansas	Forest City			$33.21	$49,810					
Arkansas	Fort Smith	$0.73	$5,649	$34.09	$51,139	$56,788	1.18%	$670	$4,305	70
Arkansas	Hot Springs			$33.65	$50,474					
Arkansas	Jonesboro			$32.78	$49,146					
Arkansas	Little Rock	$0.85	$6,540	$34.54	$51,803	$58,342	1.54%	$900	$4,634	76
Arkansas	Pine Bluff	$0.74	$5,703	$33.65	$50,474	$56,177	1.47%	$827	$4,422	73
Calif	Bakersfield	$2.14	$16,509	$46.49	$69,734	$86,244	0.71%	$608	$6,128	100
Calif	Bishop			$48.70	$73,055					
Calif	Chico	$2.25	$17,325	$46.93	$70,398	$87,723	1.16%	$1,019	$6,834	108
Calif	Eureka			$47.38	$71,063					
Calif	Fairfield, Vacavle, Elmra	$3.66	$28,205	$50.03	$75,047	$103,252	0.97%	$1,004	$7,612	124

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Residential single family home.

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State	City or Urban Area	SITE PRICE 7,700 sq ft lot $/sq ft	Dollars	CONSTRUCTION COST 1,800 sq ft house $/sq ft	Dollars	PROPERTY VALUE Dollars	PROPERTY TAXES rate Percent	tax Dollars	TOTAL ANNUAL PROPERTY COST* Dollars	Index
Calif	Fresno	$2.68	$20,657	$50.03	$75,047	$95,704	0.84%	$808	$6,933	113
Calif	Los Angeles (1)	$4.96	$38,226	$50.47	$75,712	$113,937	0.98%	$1,122	$8,414	137
Calif	Marysville			$48.26	$72,391					
Calif	Monterey			$50.47	$75,712					
Calif	Oakland, Newark	$5.40	$41,580	$53.13	$79,696	$121,276	0.88%	$1,062	$8,824	144
Calif	Pacifica, El Granada			$53.13	$79,696					
Calif	Palm Springs			$49.15	$73,719					
Calif	Placerville			$48.26	$72,391					
Calif	Redding	$2.00	$15,400	$46.49	$69,734	$85,134	1.24%	$1,055	$6,504	106
Calif	Redwood City, San Bruno			$51.36	$77,040					
Calif	Sacramento	$2.74	$21,121	$48.26	$72,391	$93,512	1.04%	$968	$6,953	113
Calif	Saint Helena, Rutherford			$50.03	$75,047					
Calif	Salinas	$5.05	$38,888	$50.47	$75,712	$114,600	0.89%	$1,025	$8,359	136
Calif	San Bernardino, Barstow	$2.27	$17,443	$48.70	$73,055	$90,498	1.06%	$975	$6,767	110
Calif	San Diego	$5.88	$45,294	$49.59	$74,383	$119,677	1.07%	$1,284	$8,944	146
Calif	San Francisco	$5.70	$43,900	$53.13	$79,696	$123,596	0.96%	$1,186	$9,096	148
Calif	San Jose	$7.51	$57,827	$51.80	$77,704	$135,531	0.78%	$1,052	$9,726	159
Calif	San Luis Obispo			$49.15	$73,719					
Calif	Santa Barbara, Santa Maria	$4.18	$32,194	$49.59	$74,383	$106,578	0.94%	$1,006	$7,827	128
Calif	Santa Rosa, Bodega	$5.69	$43,785	$50.03	$75,047	$118,832	0.96%	$1,145	$8,751	143
Calif	Stockton	$2.95	$22,738	$48.26	$72,391	$95,128	1.02%	$966	$7,054	115
Calif	Susanville			$47.82	$71,727					
Calif	Visalia	$1.94	$14,913	$47.38	$71,063	$85,975	0.83%	$714	$6,216	101
Calif	Winters			$48.26	$72,391					
Colorado	Boulder, Allenspark			$43.39	$65,085					
Colorado	Castle Rock			$43.39	$65,085					
Colorado	Central City			$43.39	$65,085					
Colorado	Colorado Springs, Calhan	$1.46	$11,288	$45.60	$68,406	$79,672	1.01%	$808	$5,907	96
Colorado	Denver	$2.67	$20,538	$43.39	$65,085	$85,621	0.95%	$818	$6,297	103
Colorado	Florissant			$45.60	$68,406					
Colorado	Fort Collins	$1.85	$14,217	$41.18	$61,765	$75,982	1.08%	$821	$5,684	93
Colorado	Grand Junction			$40.29	$60,436					
Colorado	Greeley	$1.76	$13,514	$43.39	$65,085	$78,599	1.10%	$863	$5,894	96
Colorado	La Junta			$38.52	$57,780					
Colorado	Lake George			$45.60	$68,406					
Colorado	Montrose			$40.29	$60,436					
Colorado	Pueblo	$1.47	$11,311	$41.62	$62,429	$73,740	1.07%	$788	$5,507	90
Colorado	Sterling			$42.95	$64,421					
Colorado	Strasburg			$43.39	$65,085					
Colorado	Trinidad			$38.96	$58,444					
Conn	Hartford	$1.70	$13,108	$42.50	$63,757	$76,862	1.65%	$1,272	$8,191	101
Conn	New Haven, Waterbury	$2.17	$16,745	$42.95	$64,421	$81,167	1.86%	$1,506	$8,701	109
Conn	Norwich, New London	$1.30	$10,000	$40.29	$60,436	$70,436	1.40%	$986	$5,494	90

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State	City or Urban Area	SITE PRICE 7,700 sq ft lot $/sq ft	SITE PRICE 7,700 sq ft lot Dollars	CONSTRUCTION COST 1,500 sq ft house $/sq ft	CONSTRUCTION COST 1,500 sq ft house Dollars	PROPERTY VALUE Dollars	PROPERTY TAXES rate Percent	PROPERTY TAXES tax Dollars	TOTAL ANNUAL PROPERTY COST* Dollars	Index
Conn	Stamford, Bdgeprt, Grnwch	$2.58	$19,831	$47.38	$71,063	$90,894	1.50%	$1,362	$7,179	117
Conn	Torrington			$41.62	$62,429					
Delaware	Dover			$41.18	$61,765					
Delaware	Wilmington	$1.44	$11,112	$41.62	$62,429	$73,541	0.94%	$694	$5,400	88
Dist Col	Washington, D. C.	$3.13	$24,111	$39.85	$59,772	$83,884	1.42%	$1,193	$6,562	107
Florida	Cocoa	$1.46	$11,259	$35.86	$53,795	$65,054	1.35%	$877	$5,041	82
Florida	Daytona Beach	$1.16	$8,956	$36.42	$53,131	$62,087	1.05%	$654	$4,627	75
Florida	Fort Lauderdale	$2.96	$22,806	$37.19	$55,787	$78,593	0.77%	$606	$5,636	92
Florida	Fort Myers	$1.28	$9,863	$35.42	$53,131	$62,994	0.92%	$582	$4,613	75
Florida	Fort Pierce			$37.19	$55,787					
Florida	Gainesville	$1.11	$8,526	$35.42	$53,131	$61,657	1.33%	$817	$4,763	78
Florida	Jacksonville	$1.00	$7,669	$34.98	$52,467	$60,135	0.93%	$559	$4,406	72
Florida	Lakeland	$0.97	$7,440	$36.31	$54,459	$61,899	0.61%	$380	$4,342	71
Florida	Miami	$2.35	$18,061	$37.19	$55,787	$73,848	0.92%	$677	$5,403	88
Florida	Naples			$36.31	$54,459					
Florida	Orlando	$1.49	$11,467	$35.42	$53,131	$64,598	1.03%	$665	$4,800	78
Florida	Panama City			$33.21	$49,810					
Florida	Pensacola	$0.77	$5,948	$34.98	$52,467	$58,415	0.80%	$470	$4,209	69
Florida	Saint Petersburg			$36.31	$54,459					
Florida	Sarasota	$2.57	$19,820	$36.31	$54,459	$74,279	0.75%	$554	$5,306	87
Florida	Tallahassee	$0.81	$6,259	$34.09	$51,139	$57,397	0.86%	$495	$4,168	68
Florida	Tampa	$1.50	$11,544	$36.31	$54,459	$66,003	0.61%	$404	$4,628	75
Florida	West Palm Beach	$2.11	$16,266	$37.19	$55,787	$72,053	0.70%	$502	$5,113	83
Georgia	Albany	$0.60	$4,605	$35.42	$53,131	$57,736	1.09%	$629	$4,324	70
Georgia	Athens			$29.22	$43,833					
Georgia	Atlanta	$0.69	$5,300	$36.31	$54,459	$59,759	1.14%	$681	$4,505	73
Georgia	Augusta	$0.61	$4,727	$35.42	$53,131	$57,858	0.95%	$551	$4,254	69
Georgia	Brunswick			$36.75	$55,123					
Georgia	Calhoun			$34.98	$52,467					
Georgia	Carters			$34.98	$52,467					
Georgia	Columbus	$0.49	$3,804	$30.99	$46,490	$50,293	0.97%	$490	$3,709	60
Georgia	Covington, New Born			$36.31	$54,459					
Georgia	Dublin			$33.65	$50,474					
Georgia	Gainesville			$29.66	$44,497					
Georgia	Griffin			$36.31	$54,459					
Georgia	Hogansville			$36.31	$54,459					
Georgia	Jackson			$36.31	$54,459					
Georgia	Macon	$0.48	$3,734	$33.21	$49,810	$53,544	1.18%	$633	$4,060	66
Georgia	Milner			$33.21	$49,810					
Georgia	Newnan			$36.31	$54,459					

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Georgia	Rome			$34.98	$52,467					
Georgia	Savannah	$1.12	$8,603	$38.08	$57,116	$85,719	1.18%	$773	$4,979	81
Georgia	Valdosta			$27.89	$41,841					
Georgia	Waycross			$29.22	$43,833					
Georgia	Zebulon			$36.31	$54,459					
Hawaii	Honolulu	$8.96	$53,554	$51.80	$77,704	$131,257	0.54%	$703	$9,103	148
Idaho	Boise	$1.53	$11,780	$38.08	$57,116	$88,695	0.94%	$848	$5,058	82
Idaho	Idaho Falls			$38.52	$57,780					
Idaho	Kellogg			$42.50	$63,757					
Idaho	Lewiston			$41.62	$62,429					
Idaho	Pocatello			$38.96	$58,444					
Idaho	Twin Falls			$40.29	$60,436					
Illinois	Alton			$42.50	$63,757					
Illinois	Aurora	$1.77	$13,629	$42.95	$64,421	$78,050	1.65%	$1,291	$6,286	102
Illinois	Carbondale			$39.41	$59,108					
Illinois	Centralia			$41.18	$61,765					
Illinois	Champaign	$1.05	$8,065	$41.18	$61,765	$69,830	1.77%	$1,238	$5,707	93
Illinois	Chicago (2)	$2.03	$15,620	$42.50	$63,757	$79,377	1.52%	$1,203	$6,283	102
Illinois	Freeport			$43.39	$65,085					
Illinois	Galesburg			$43.39	$65,085					
Illinois	Glen Ellyn			$42.06	$63,093					
Illinois	Joliet	$1.24	$9,548	$44.72	$67,078	$76,626	2.01%	$1,538	$6,442	105
Illinois	Kankakee			$42.95	$64,421					
Illinois	Mattoon			$40.29	$60,436					
Illinois	Olney			$39.41	$59,108					
Illinois	Peoria	$0.94	$7,202	$42.50	$63,757	$70,960	2.36%	$1,675	$6,217	101
Illinois	Quincy			$38.52	$57,780					
Illinois	Rock Island, Moline	$1.37	$10,546	$41.62	$62,429	$72,975	1.60%	$1,165	$5,835	95
Illinois	Rockford	$0.84	$6,501	$43.39	$65,085	$71,586	1.37%	$984	$5,566	91
Illinois	Springfield	$1.21	$9,310	$40.73	$61,101	$70,411	1.85%	$1,299	$5,805	95
Illinois	Waukegon			$43.83	$65,750					
Indiana	Bloomington			$39.41	$59,108					
Indiana	Evansville	$0.88	$6,744	$42.50	$63,757	$70,501	0.98%	$693	$5,206	85
Indiana	Fort Wayne	$0.70	$5,366	$39.41	$59,108	$64,474	1.08%	$696	$4,822	79
Indiana	Gary	$0.79	$6,051	$42.50	$63,757	$69,808	1.31%	$913	$5,381	88
Indiana	Greensburg			$39.85	$59,772					
Indiana	Indianapolis	$0.72	$5,562	$43.83	$65,750	$71,311	1.29%	$922	$5,486	89
Indiana	Kokomo	$0.87	$6,707	$39.85	$59,772	$66,479	0.90%	$596	$4,851	79
Indiana	Lafayette	$1.50	$11,512	$38.08	$57,116	$88,627	0.13%	$89	$4,481	73

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Indiana	Muncie	$0.57	$4,404	$39.41	$59,108	$63,513	1.10%	$697	$4,761	78
Indiana	New Albany			$36.75	$55,123					
Indiana	Richmond			$42.50	$63,757					
Indiana	South Bend	$0.53	$4,095	$39.41	$59,108	$63,203	1.25%	$792	$4,837	79
Indiana	Terre Haute			$40.29	$60,436					
Iowa	Burlington			$39.41	$59,108					
Iowa	Cedar Rapids	$1.31	$10,054	$38.08	$57,116	$67,170	1.60%	$1,073	$5,372	88
Iowa	Council Bluffs			$35.86	$53,795					
Iowa	Creston			$37.19	$55,787					
Iowa	Davenport	$1.38	$10,652	$39.85	$59,772	$70,424	1.47%	$1,035	$5,542	90
Iowa	Des Moines	$1.30	$10,037	$38.08	$57,116	$67,153	1.52%	$1,020	$5,318	87
Iowa	Dubuque	$1.63	$12,513	$37.19	$55,787	$68,300	1.52%	$1,041	$5,412	88
Iowa	Fort Dodge			$39.41	$59,108					
Iowa	Marshalltown			$37.63	$56,452					
Iowa	Mason City			$34.98	$52,467					
Iowa	Ottumwa			$38.08	$57,116					
Iowa	Sioux City	$0.93	$7,149	$36.75	$55,123	$62,272	1.76%	$1,098	$5,084	83
Iowa	Spencer			$33.65	$50,474					
Iowa	Waterloo	$1.24	$9,519	$38.96	$58,444	$67,963	1.41%	$959	$5,309	87
Kansas	Arkansas City			$33.65	$50,474					
Kansas	Atchison			$41.18	$61,765					
Kansas	Colby			$33.65	$50,474					
Kansas	Dodge City			$30.99	$46,490					
Kansas	Emporia			$38.96	$58,444					
Kansas	Garden City			$33.21	$49,810					
Kansas	Great Bend			$34.54	$51,803					
Kansas	Hays			$34.54	$51,803					
Kansas	Independence			$34.54	$51,803					
Kansas	Kansas City	$0.93	$7,134	$41.18	$61,765	$68,899	0.92%	$635	$5,044	82
Kansas	Lawrence	$0.75	$5,767	$41.18	$61,765	$67,532	1.07%	$721	$5,043	82
Kansas	Leavenworth			$41.18	$61,765					
Kansas	Liberal			$42.06	$63,093					
Kansas	Louisburg			$41.18	$61,765					
Kansas	Salina			$34.54	$51,803					
Kansas	Topeka	$0.94	$7,222	$38.52	$57,780	$65,002	1.15%	$744	$4,908	80
Kansas	Wichita	$0.81	$6,228	$35.42	$53,131	$59,358	1.03%	$611	$4,410	72
Kentucky	Ashland			$38.52	$57,780					
Kentucky	Bowling Green			$32.32	$48,482					
Kentucky	Covington			$41.62	$62,429					
Kentucky	Elizabethtown			$31.44	$47,164					
Kentucky	Lexington	$1.27	$9,767	$37.63	$56,452	$66,218	0.96%	$633	$4,871	79

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Kentucky	Louisville	$0.95	$7,283	$36.31	$54,459	$61,742	1.18%	$728	$4,678	78
Kentucky	Madisonville			$35.42	$53,131					
Kentucky	Middlesboro			$32.32	$48,482					
Kentucky	Owensboro	$0.97	$7,485	$39.85	$59,772	$67,257	1.04%	$697	$5,002	82
Kentucky	Paducah			$36.75	$55,123					
Kentucky	Pikesville			$38.52	$57,780					
Kentucky	Somerset			$30.55	$45,825					
Louisiana	Alexandria	$0.66	$5,048	$31.88	$47,818	$52,866	0.14%	$77	$3,460	56
Louisiana	Baton Rouge	$1.33	$10,264	$36.31	$54,459	$64,723	0.08%	$54	$4,197	68
Louisiana	Bogalusa			$38.52	$57,780					
Louisiana	Gonzales			$36.31	$54,459					
Louisiana	Hammond			$34.98	$52,467					
Louisiana	Houma			$36.31	$54,459					
Louisiana	Lafayette			$36.31	$54,459					
Louisiana	Lake Charles	$1.27	$9,757	$38.52	$57,780	$67,537	0.20%	$136	$4,459	73
Louisiana	Metairie, Gretna			$37.63	$56,452					
Louisiana	Monroe	$0.63	$4,846	$34.98	$52,467	$57,313	0.20%	$114	$3,782	62
Louisiana	New Iberia			$36.75	$55,123					
Louisiana	New Orleans	$3.02	$23,259	$37.63	$56,452	$79,711	0.13%	$104	$5,205	85
Louisiana	Port Sulphur			$37.63	$56,452					
Louisiana	Reserve			$37.63	$56,452					
Louisiana	Shreveport	$1.26	$9,678	$36.31	$54,459	$64,135	0.36%	$234	$4,338	71
Maine	Augusta			$37.63	$56,452					
Maine	Bangor	$0.89	$6,838	$34.98	$52,467	$59,305	1.62%	$963	$4,759	78
Maine	Machias			$38.08	$57,116					
Maine	Portland	$1.22	$9,401	$39.41	$59,108	$68,509	1.43%	$982	$5,367	87
Maine	Presque Isle			$37.63	$56,452					
Maryland	Annapolis, Glen Burnie			$40.29	$60,436					
Maryland	Baltimore	$2.79	$21,514	$41.18	$61,765	$83,279	1.22%	$1,019	$6,349	103
Maryland	Cambridge			$37.63	$56,452					
Maryland	Cumberland			$40.29	$60,436					
Maryland	Easton			$36.31	$54,459					
Maryland	Edgewood			$41.18	$61,765					
Maryland	Hagerstown	$1.40	$10,793	$39.41	$59,108	$69,901	0.94%	$658	$5,132	84
Maryland	Randallstown, Reisterstwn			$41.18	$61,765					
Maryland	Salisbury			$37.63	$56,452					
Maryland	Silver Springs			$40.73	$61,101					
Mass	Boston, Lexington, Milton	$2.09	$16,106	$49.59	$74,383	$90,489	1.82%	$1,644	$7,435	121
Mass	Brockton	$1.27	$9,804	$44.28	$66,414	$76,218	2.04%	$1,556	$6,434	105

Table 4. Property Ownership Costs by City, 1985
Residential single family home.

Neighborhood location: 42% within city limits but not in city core, 53% suburban, 5% rural.

* Total annual cost - mortgage of 8% interest and principle rate on 80% of property value, plus property taxes.

State	City or Urban Area	SITE PRICE 7,700 sq ft lot $/sq ft	Dollars	CONSTRUCTION COST 1,500 sq ft house $/sq ft	Dollars	PROPERTY VALUE Dollars	PROPERTY TAXES rate Percent	tax Dollars	TOTAL ANNUAL PROPERTY COST* Dollars	Index
Mass	Concord			$49.59	$74,383					
Mass	Hyannis			$44.72	$67,078					
Mass	Lowell			$44.28	$66,414					
Mass	Lynn			$49.59	$74,383					
Mass	New Bedford			$43.83	$65,750					
Mass	Norwood			$49.59	$74,383					
Mass	Pittsfield			$39.41	$59,108					
Mass	Salem			$43.39	$65,085					
Mass	Springfield	$0.83	$6,406	$42.06	$63,093	$69,499	0.81%	$563	$5,011	82
Mass	Worcester, Ptchbrg, Wbstr			$44.28	$66,414					
Michigan	Alpena			$39.85	$59,772					
Michigan	Ann Arbor			$47.82	$71,727					
Michigan	Charlotte	$0.79	$6,097	$42.50	$63,757	$69,854	0.95%	$661	$5,132	84
Michigan	Clinton, Adrian			$47.82	$71,727					
Michigan	Detroit	$0.92	$7,065	$47.82	$71,727	$78,792	3.10%	$2,445	$7,488	122
Michigan	Flint, Fenton, Goodrich	$0.89	$6,808	$45.16	$67,742	$72,250	2.52%	$1,819	$6,443	105
Michigan	Grand Rapids	$0.82	$6,323	$39.41	$59,108	$65,431	2.06%	$1,351	$5,538	90
Michigan	Hamburg			$47.82	$71,727					
Michigan	Imlay City, Hadley			$45.16	$67,742					
Michigan	Ironwood			$37.63	$56,452					
Michigan	Kalamazoo	$0.70	$5,384	$40.73	$61,101	$66,484	2.16%	$1,437	$5,690	93
Michigan	Lansing	$0.99	$7,590	$42.50	$63,757	$71,347	2.62%	$1,871	$6,437	105
Michigan	Marquette			$37.19	$55,787					
Michigan	Muskegon			$38.96	$58,444					
Michigan	Petersburg, Luna Pier			$47.82	$71,727					
Michigan	Petosky			$38.52	$57,780					
Michigan	Port Huron			$42.95	$64,421					
Michigan	Portland			$42.50	$63,757					
Michigan	Saint Johns			$42.50	$63,757					
Michigan	Sault Sainte Marie			$38.96	$58,444					
Michigan	Stockbridge			$42.50	$63,757					
Michigan	Traverse City			$39.85	$59,772					
Minnesota	Brainerd			$38.52	$57,780					
Minnesota	Chanhassen			$45.16	$67,742					
Minnesota	Duluth, Virginia	$0.94	$7,250	$42.06	$63,093	$70,343	1.10%	$773	$5,275	88
Minnesota	Hutchinson			$45.16	$67,742					
Minnesota	Mankato			$37.63	$56,452					
Minnesota	Minneapolis	$1.78	$13,732	$45.16	$67,742	$81,474	1.08%	$877	$6,092	99
Minnesota	Montevideo			$34.54	$51,803					
Minnesota	Northfield			$45.16	$67,742					
Minnesota	Owatonna			$40.73	$61,101					
Minnesota	Princeton			$40.29	$60,436					
Minnesota	Rochester	$1.88	$14,501	$40.73	$61,101	$75,601	0.71%	$539	$5,378	88

Table 4. Property Ownership Costs by City, 1985
Residential single family home.

Neighborhood location: 42% within city limits but not in city core, 53% suburban, 5% rural.

* Total annual cost = mortgage of 8% interest and principle rate on 80% of property value, plus property taxes.

State	City or Urban Area	SITE PRICE 7,700 sq ft lot $/sq ft	Dollars	CONSTRUCTION COST 1,500 sq ft house $/sq ft	Dollars	PROPERTY VALUE Dollars	PROPERTY TAXES rate Percent	tax Dollars	TOTAL ANNUAL PROPERTY COST* Dollars	Index
Minnesota	Saint Cloud, Kimball Pra	$1.21	$9,310	$40.29	$60,436	$69,747	0.67%	$469	$4,933	80
Minnesota	Saint Paul			$45.16	$67,742					
Minnesota	Winona			$40.73	$61,101					
Minnesota	Winthrop			$37.63	$56,452					
Miss	Clarksdale			$33.21	$49,810					
Miss	Columbus			$30.55	$45,825					
Miss	Greenville			$32.76	$49,146					
Miss	Greenwood			$30.11	$45,161					
Miss	Gulfport	$0.76	$5,836	$35.86	$53,795	$59,632	0.83%	$493	$4,310	70
Miss	Hattiesburg			$37.19	$55,787					
Miss	Jackson	$0.86	$6,648	$35.42	$53,131	$59,779	0.92%	$550	$4,376	71
Miss	Meridian			$30.55	$45,825					
Miss	Natchez			$30.55	$45,825					
Miss	Tupelo			$33.65	$50,474					
Missouri	Cape Girardeau			$37.63	$56,452					
Missouri	Chillicothe			$36.75	$55,123					
Missouri	Clinton			$40.29	$60,436					
Missouri	Columbia	$0.77	$5,910	$38.52	$57,780	$63,690	1.29%	$823	$4,899	80
Missouri	Farmington, Bismark			$41.62	$62,429					
Missouri	Hannibal			$38.96	$58,444					
Missouri	Hermann, Owensville			$38.52	$57,780					
Missouri	Jefferson City			$38.08	$57,116					
Missouri	Joplin	$0.55	$4,202	$38.08	$57,116	$61,318	0.84%	$516	$4,441	72
Missouri	Kansas City, Independence	$0.92	$7,086	$40.29	$60,436	$67,522	0.93%	$626	$4,947	81
Missouri	Kirksville			$35.86	$53,795					
Missouri	Montgomery City, Hgh Hill			$38.52	$57,780					
Missouri	New Hartford			$39.41	$59,108					
Missouri	Plattsburg			$40.29	$60,436					
Missouri	Poplar Bluff			$38.08	$57,116					
Missouri	Potosi			$39.41	$59,108					
Missouri	Rolla			$39.41	$59,108					
Missouri	Saint Joseph	$0.77	$5,943	$38.52	$57,780	$63,723	0.80%	$508	$4,586	75
Missouri	Saint Louis	$1.02	$7,881	$41.62	$62,429	$70,310	1.05%	$740	$5,240	85
Missouri	Springfield	$0.62	$4,789	$37.63	$56,452	$61,241	1.57%	$963	$4,882	80
Missouri	Sullivan, Gerald			$39.41	$59,108					
Missouri	Warrensburg			$40.29	$60,436					
Missouri	West Plains			$26.57	$39,848					
Montana	Billings	$1.77	$13,650	$40.29	$60,436	$74,087	1.19%	$882	$5,624	92
Montana	Butte			$38.52	$57,780					
Montana	Great Falls	$1.48	$11,417	$39.85	$59,772	$71,190	1.39%	$991	$5,547	90
Montana	Havre			$38.96	$58,444					

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Residential single family home.

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State	City or Urban Area	SITE PRICE 7,700 sq ft lot $/sq ft	SITE PRICE 7,700 sq ft lot Dollars	CONSTRUCTION COST 1,500 sq ft house $/sq ft	CONSTRUCTION COST 1,500 sq ft house Dollars	PROPERTY VALUE Dollars	PROPERTY TAXES rate Percent	PROPERTY TAXES tax Dollars	TOTAL ANNUAL PROPERTY COST* Dollars	TOTAL ANNUAL PROPERTY COST* Index
Montana	Helena			$38.52	$57,780					
Montana	Kalispell			$39.41	$59,108					
Montana	Miles City			$38.96	$58,444					
Montana	Missoula			$40.29	$60,436					
Nebraska	Columbus			$34.54	$51,803					
Nebraska	Grand Island			$31.88	$47,818					
Nebraska	Kearney			$33.65	$50,474					
Nebraska	Lincoln	$1.44	$11,124	$33.21	$49,810	$60,934	1.90%	$1,156	$5,055	82
Nebraska	Norfolk			$35.86	$53,795					
Nebraska	North Platte			$34.54	$51,803					
Nebraska	Omaha	$1.00	$7,710	$36.31	$54,459	$62,169	2.34%	$1,458	$5,436	89
Nebraska	Scotts Bluff			$32.76	$49,146					
Nevada	Elko			$46.93	$70,398					
Nevada	Las Vegas	$2.49	$19,137	$46.49	$69,734	$88,872	0.83%	$741	$6,429	106
Nevada	Reno	$3.62	$27,866	$48.70	$73,055	$100,121	0.69%	$689	$7,097	116
New Hamp	Claremont			$38.96	$58,444					
New Hamp	Manchester	$1.94	$14,937	$40.29	$60,436	$75,374	2.02%	$1,521	$6,345	103
New Hamp	Portsmouth	$1.06	$8,163	$40.29	$60,436	$68,579	1.59%	$1,094	$5,483	89
New Jersey	Asbury Park	$1.44	$11,053	$41.62	$62,429	$73,482	2.43%	$1,783	$6,485	106
New Jersey	Atlantic City	$1.06	$8,130	$46.93	$70,398	$78,528	1.97%	$1,547	$6,572	107
New Jersey	Bridgeton	$0.69	$5,328	$46.49	$69,734	$75,063	2.78%	$2,086	$6,890	112
New Jersey	Camden, Cherry Hill			$42.50	$63,757					
New Jersey	Flemington			$42.50	$63,757					
New Jersey	Hackensack			$42.95	$64,421					
New Jersey	Jersey City	$2.89	$22,222	$45.60	$68,406	$90,628	3.64%	$3,299	$9,099	148
New Jersey	Morristown			$43.39	$65,085					
New Jersey	New Brunswick, East Brnwk	$3.03	$23,340	$44.28	$66,414	$89,754	3.17%	$1,951	$7,696	125
New Jersey	Newark, Orange	$2.28	$17,565	$44.28	$66,414	$83,978	2.77%	$2,328	$7,701	126
New Jersey	Paterson	$2.12	$16,321	$42.50	$63,757	$80,078	2.61%	$2,093	$7,218	118
New Jersey	Phillipsburg			$43.83	$65,750					
New Jersey	Toms River			$43.39	$65,085					
New Jersey	Trenton	$2.11	$16,230	$41.62	$62,429	$78,659	2.67%	$2,103	$7,137	116
New Jersey	Wildwood			$46.49	$69,734					
New Mexico	Albuquerque	$2.09	$16,100	$37.63	$56,452	$72,552	1.09%	$790	$5,434	89
New Mexico	Clovis			$40.29	$60,436					
New Mexico	Farmington			$40.29	$60,436					
New Mexico	Gallup			$38.96	$58,444					

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Residential single family home.

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State	City or Urban Area	SITE PRICE 7,700 sq ft lot $/sq ft	Dollars	CONSTRUCTION COST 1,500 sq ft house $/sq ft	Dollars	PROPERTY VALUE Dollars	PROPERTY TAXES rate Percent	tax Dollars	TOTAL ANNUAL PROPERTY COST* Dollars	Index
New Mexico	Hobbs			$40.29	$60,436					
New Mexico	Las Cruces	$1.69	$13,018	$37.19	$55,787	$68,805	0.60%	$410	$4,813	78
New Mexico	Roswell			$38.06	$57,116					
New Mexico	Santa Fe			$38.06	$57,116					
New York	Albany	$0.83	$6,406	$40.73	$61,101	$67,509	2.35%	$1,519	$5,839	95
New York	Binghamton	$1.01	$7,810	$38.96	$58,444	$66,254	1.68%	$1,268	$5,486	89
New York	Buffalo	$0.84	$6,441	$42.50	$63,757	$70,198	2.38%	$1,668	$6,160	100
New York	Elmira			$40.29	$60,436					
New York	Glen Falls			$38.52	$57,780					
New York	Jamestown			$41.18	$61,765					
New York	Kingston			$42.50	$63,757					
New York	Nassau	$1.26	$9,726	$45.60	$68,406	$78,132	3.23%	$2,523	$7,522	122
New York	New York City	$3.52	$27,105	$54.45	$81,689	$106,794	1.91%	$2,074	$9,037	147
New York	Plattsburgh			$38.52	$57,780					
New York	Potsdam			$41.18	$61,765					
New York	Poughkeepsie	$0.92	$7,073	$42.50	$63,757	$70,830	2.37%	$1,678	$6,211	101
New York	Rochester	$0.92	$7,089	$41.18	$61,765	$68,854	2.15%	$1,478	$5,885	96
New York	Schenectady			$40.29	$60,436					
New York	Syracuse	$0.94	$7,257	$44.72	$67,078	$74,335	2.36%	$1,751	$6,509	106
New York	Utica			$40.73	$61,101					
New York	Watertown			$41.18	$61,765					
New York	White Plains, Rye			$50.47	$75,712					
North Car	Asheville	$0.65	$5,026	$28.78	$43,169	$48,195	0.82%	$393	$3,478	57
North Car	Charlotte			$36.31	$54,459					
North Car	Fayetteville			$31.68	$47,518					
North Car	Goldsboro			$28.78	$43,169					
North Car	Greensboro	$0.65	$5,028	$33.21	$49,810	$54,838	0.90%	$496	$4,005	65
North Car	Lenoir			$29.22	$43,833					
North Car	New Bern			$30.11	$45,161					
North Car	Raleigh	$0.90	$6,921	$31.88	$47,818	$54,739	1.02%	$560	$4,063	66
North Car	Rocky Mount			$32.32	$48,482					
North Car	Wilmington	$0.71	$5,458	$33.21	$49,810	$55,268	0.94%	$520	$4,056	66
North Car	Winston-Salem			$34.98	$52,467					
North Dak	Bismark	$1.87	$14,388	$38.52	$57,780	$72,168	1.26%	$908	$5,526	90
North Dak	Devils Lake			$35.86	$53,795					
North Dak	Fargo	$1.46	$11,270	$35.42	$53,131	$64,400	1.13%	$729	$4,851	79
North Dak	Grand Forks	$1.56	$12,049	$34.98	$52,467	$64,515	1.32%	$850	$4,979	81
North Dak	Jamestown			$33.65	$50,474					
North Dak	Minot			$37.19	$55,787					
North Dak	Williston			$33.65	$50,474					

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State	City or Urban Area	SITE PRICE 7,700 sq ft lot $/sq ft	SITE PRICE 7,700 sq ft lot Dollars	CONSTRUCTION COST 1,800 sq ft house $/sq ft	CONSTRUCTION COST 1,800 sq ft house Dollars	PROPERTY VALUE Dollars	PROPERTY TAXES rate Percent	PROPERTY TAXES tax Dollars	TOTAL ANNUAL PROPERTY COST* Dollars	TOTAL ANNUAL PROPERTY COST* Index
Ohio	Akron	$1.03	$7,923	$43.83	$65,750	$73,672	1.11%	$818	$5,533	90
Ohio	Athens			$38.52	$57,780					
Ohio	Canton	$0.84	$6,477	$42.50	$63,757	$70,234	0.81%	$571	$5,066	83
Ohio	Cincinnati	$1.17	$9,038	$42.50	$63,757	$72,795	0.99%	$721	$5,380	88
Ohio	Cleveland, North Olmsted	$1.54	$11,841	$46.93	$70,398	$82,239	1.22%	$1,006	$6,269	102
Ohio	Columbus	$1.28	$9,839	$42.95	$64,421	$74,261	1.29%	$955	$5,708	93
Ohio	Dayton, Brookville, Greentwn	$0.93	$7,164	$41.62	$62,429	$69,613	1.16%	$807	$5,262	86
Ohio	Decatur	$0.93	$7,172	$41.62	$62,429	$69,601	1.47%	$1,024	$5,479	89
Ohio	Eaton			$39.41	$59,108					
Ohio	Elyria	$1.41	$10,873	$46.93	$70,398	$81,271	0.98%	$796	$5,907	96
Ohio	Lewisburg			$42.50	$63,757					
Ohio	Lima	$0.99	$7,608	$41.62	$62,429	$70,038	0.98%	$685	$5,187	84
Ohio	Mansfield	$0.63	$4,819	$41.62	$62,429	$67,248	0.92%	$620	$4,923	80
Ohio	Niles, Cortland, Minrl Rg			$43.39	$65,085					
Ohio	Painesville			$45.60	$68,406					
Ohio	Polk			$41.62	$62,429					
Ohio	Portsmouth			$41.62	$62,429					
Ohio	Sandusky			$43.83	$65,750					
Ohio	Spring Valley, Xenia			$41.62	$62,429					
Ohio	Steubenville			$40.73	$61,101					
Ohio	Toledo	$1.11	$8,558	$42.50	$63,757	$72,315	1.40%	$1,012	$5,840	92
Ohio	Youngstown	$0.68	$5,274	$43.39	$65,085	$70,360	1.01%	$710	$5,213	85
Ohio	Zanesville			$39.41	$59,108					
Oklahoma	Ardmore			$37.19	$55,787					
Oklahoma	Bartlesville			$38.52	$57,780					
Oklahoma	Clinton			$38.96	$58,444					
Oklahoma	Enid	$0.75	$5,811	$38.08	$57,116	$62,927	0.64%	$404	$4,431	73
Oklahoma	Hugo			$32.76	$49,148					
Oklahoma	Lawton	$0.85	$6,508	$36.75	$55,123	$61,631	0.74%	$457	$4,401	73
Oklahoma	McAlester			$35.88	$53,795					
Oklahoma	Muskogee			$37.19	$55,787					
Oklahoma	Oklahoma City	$1.38	$10,475	$38.52	$57,780	$68,255	0.90%	$611	$4,980	81
Oklahoma	Stillwater			$38.52	$57,780					
Oklahoma	Tulsa	$1.53	$11,747	$40.73	$61,101	$72,848	1.01%	$737	$5,399	88
Oregon	Astoria			$42.50	$63,757					
Oregon	Bend			$42.95	$64,421					
Oregon	Eugene	$2.21	$17,005	$41.62	$62,429	$79,434	2.00%	$1,589	$8,872	109
Oregon	Medford			$41.18	$61,765					
Oregon	Pendelton			$41.18	$61,765					
Oregon	Portland	$2.52	$19,390	$42.95	$64,421	$83,811	1.78%	$1,490	$8,863	113
Oregon	Salem	$1.75	$13,499	$44.28	$66,414	$79,912	2.03%	$1,625	$8,739	110
Oregon	The Dalles			$42.06	$63,093					

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Penn	Allentown	$2.33	$17,906	$42.95	$84,421	$82,326	1.67%	$1,372	$6,640	108
Penn	Altoona			$37.63	$56,452					
Penn	Camp Hill			$38.52	$57,780					
Penn	Dayton, Sagamore			$42.06	$63,093					
Penn	DuBois			$40.29	$60,436					
Penn	Erie, Waterford	$1.18	$9,103	$40.73	$61,101	$70,203	1.69%	$1,189	$5,682	93
Penn	Greensburg, Murrysville			$44.72	$67,078					
Penn	Harrisburg, Middletown	$1.29	$9,909	$38.96	$58,444	$68,353	1.10%	$755	$5,129	84
Penn	Indiana			$42.06	$63,093					
Penn	Johnstown			$42.06	$63,093					
Penn	Lancaster, Bart, Adamstwn	$1.30	$10,028	$35.88	$53,795	$63,821	0.89%	$571	$4,655	76
Penn	Levittown			$47.82	$71,727					
Penn	New Castle, Ellwood City			$43.83	$65,750					
Penn	Philadelphia	$1.70	$13,053	$47.82	$71,727	$84,779	2.04%	$1,734	$7,159	117
Penn	Pittsburgh	$1.58	$12,191	$44.72	$67,078	$79,269	1.73%	$1,368	$6,441	105
Penn	Pottstown			$47.82	$71,727					
Penn	Reading	$1.16	$8,932	$42.50	$63,757	$72,689	1.49%	$1,087	$5,739	94
Penn	Scranton	$1.06	$8,162	$39.48	$59,772	$67,934	1.42%	$963	$5,511	87
Penn	Somerset, Jarstwn, Ursina			$42.06	$63,093					
Penn	Washington			$41.18	$61,765					
Penn	West Chester, Coatsvle			$47.82	$71,727					
Penn	Wilkes-Barre			$39.41	$59,108					
Penn	Williamsport			$38.96	$58,444					
Rhode Is	Providence	$1.45	$11,172	$42.06	$63,093	$74,265	2.07%	$1,536	$6,289	103
South Car	Anderson	$1.67	$12,883	$34.09	$51,139	$63,991	0.94%	$598	$4,694	77
South Car	Beaufort			$35.42	$53,131					
South Car	Charleston	$0.93	$7,174	$32.78	$49,168	$56,320	0.72%	$408	$4,012	66
South Car	Columbia	$0.70	$5,395	$33.65	$50,474	$55,869	0.95%	$532	$4,108	67
South Car	Florence	$0.78	$6,014	$34.09	$51,139	$57,153	0.63%	$362	$4,020	66
South Car	Greenville	$0.51	$3,942	$32.78	$49,168	$53,088	0.81%	$431	$3,829	62
South Car	Greenwood			$34.09	$51,139					
South Car	Myrtle Beach			$30.99	$46,490					
South Car	Orangeburg			$33.65	$50,474					
South Dak	Aberdeen			$30.55	$45,825					
South Dak	Chamberlain			$36.31	$54,459					
South Dak	Huron			$36.75	$55,123					
South Dak	Pierre			$34.54	$51,803					
South Dak	Rapid City	$1.26	$9,710	$33.65	$50,474	$60,184	1.56%	$940	$4,792	78
South Dak	Sioux Falls	$1.19	$9,183	$35.88	$53,795	$62,948	1.86%	$1,171	$5,199	85

Table 4. Property Ownership Costs by City, 1985
Residential single family home.

Neighborhood location: 42% within city limits but not in city core, 53% suburban, 5% rural.
* Total annual cost = mortgage of 8% interest and principle rate on 80% of property value, plus property taxes.

State	City or Urban Area	SITE PRICE 7,700 sq ft lot $/sq ft	SITE PRICE 7,700 sq ft lot Dollars	CONSTRUCTION COST 1,500 sq ft house $/sq ft	CONSTRUCTION COST 1,500 sq ft house Dollars	PROPERTY VALUE Dollars	PROPERTY TAXES rate Percent	PROPERTY TAXES tax Dollars	TOTAL ANNUAL PROPERTY COST* Dollars	Index
South Dak	Watertown			$34.98	$52,467					
South Dak	Yankton			$35.42	$53,131					
Tennessee	Chattanooga	$0.35	$2,731	$34.54	$51,803	$54,534	0.92%	$501	$3,991	65
Tennessee	Clarksville	$0.53	$4,104	$34.54	$51,803	$56,907	0.86%	$481	$4,059	66
Tennessee	Columbia			$30.55	$45,828					
Tennessee	Cookeville			$30.99	$46,490					
Tennessee	Jackson			$32.76	$49,146					
Tennessee	Johnson City	$0.49	$3,790	$34.98	$52,467	$56,257	1.18%	$663	$4,264	70
Tennessee	Kingsport			$34.98	$52,467					
Tennessee	Knoxville	$0.54	$4,192	$34.09	$51,139	$55,330	1.38%	$763	$4,304	70
Tennessee	Memphis	$0.98	$7,511	$37.63	$56,452	$63,963	1.38%	$862	$4,956	81
Tennessee	Nashville	$0.79	$6,097	$32.76	$49,146	$55,243	0.77%	$424	$3,959	65
Tennessee	Union City			$33.65	$50,474					
Texas	Abilene	$0.82	$6,328	$36.78	$55,189	$61,482	0.90%	$550	$4,483	73
Texas	Amarillo	$0.62	$4,760	$38.08	$57,116	$61,876	1.29%	$795	$4,755	78
Texas	Austin	$1.88	$14,444	$36.75	$55,123	$69,567	1.35%	$937	$5,389	88
Texas	Beaumont	$0.71	$5,481	$37.63	$56,452	$61,933	1.71%	$1,062	$5,025	82
Texas	Bridgeport			$38.96	$58,444					
Texas	Brownsville, Harlingen	$0.90	$6,918	$32.32	$48,482	$55,400	1.15%	$636	$4,181	68
Texas	Cleburne			$38.96	$58,444					
Texas	Corpus Christi	$1.54	$11,850	$34.98	$52,467	$64,317	1.55%	$998	$5,113	83
Texas	Dallas	$1.60	$12,349	$38.96	$58,444	$70,793	1.34%	$950	$5,481	89
Texas	Dawson			$33.21	$49,810					
Texas	Del Rio			$27.89	$41,841					
Texas	El Paso	$1.14	$8,806	$32.76	$49,146	$57,952	1.27%	$736	$4,445	72
Texas	Gainesville			$34.09	$51,139					
Texas	Granbury			$38.96	$58,444					
Texas	Hillsboro			$33.21	$49,810					
Texas	Honey Grove			$34.09	$51,139					
Texas	Houston	$1.75	$13,508	$37.19	$55,787	$69,294	1.71%	$1,187	$5,621	92
Texas	Lubbock	$0.81	$6,257	$34.98	$52,467	$58,724	1.22%	$714	$4,473	73
Texas	Nacogdoches			$31.88	$47,818					
Texas	Odessa	$0.85	$6,530	$33.65	$50,474	$57,004	1.08%	$615	$4,264	70
Texas	Pampa			$35.86	$53,796					
Texas	San Angelo	$1.12	$8,651	$32.76	$49,146	$57,797	0.97%	$559	$4,258	69
Texas	San Antonio	$1.01	$7,781	$34.54	$51,803	$59,584	1.19%	$709	$4,522	74
Texas	Sherman	$0.86	$6,607	$34.09	$51,139	$57,745	1.85%	$1,066	$4,782	78
Texas	Texarkana	$0.70	$5,394	$35.42	$53,131	$58,525	1.47%	$859	$4,604	75
Texas	Tyler	$0.75	$5,806	$34.54	$51,803	$57,608	1.70%	$977	$4,664	76
Texas	Waco	$0.61	$4,705	$33.21	$49,810	$54,515	1.61%	$877	$4,366	71
Texas	White Settlement			$38.96	$58,444					
Texas	Whitney			$33.21	$49,810					
Texas	Wichita Falls	$0.69	$5,284	$37.19	$55,787	$61,072	1.09%	$663	$4,572	75

Table 4. Property Ownership Costs by City, 1985
Residential single family home.

Neighborhood location: 42% within city limits but not in city core, 53% suburban, 5% rural.

* Total annual cost = mortgage of 8% interest and principle rate on 80% of property value, plus property taxes.

State	City or Urban Area	SITE PRICE 7,700 sq ft lot $/sq ft	SITE PRICE 7,700 sq ft lot Dollars	CONSTRUCTION COST 1,500 sq ft house $/sq ft	CONSTRUCTION COST 1,500 sq ft house Dollars	PROPERTY VALUE Dollars	PROPERTY TAXES rate Percent	PROPERTY TAXES tax Dollars	TOTAL ANNUAL PROPERTY COST* Dollars	TOTAL ANNUAL PROPERTY COST* Index
Utah	Cedar City			$38.08	$57,116					
Utah	Ogden			$39.41	$59,108					
Utah	Provo	$1.94	$14,958	$38.08	$57,116	$72,072	0.74%	$535	$5,147	84
Utah	Salt Lake City	$2.01	$15,490	$38.52	$57,780	$73,270	1.01%	$742	$5,431	89
Vermont	Burlington			$39.85	$59,772					
Vermont	Montpelier			$40.29	$60,436					
Vermont	Rutland			$37.19	$55,787					
Vermont	Saint Johnsbury			$34.54	$51,803					
Virginia	Charlottesville			$42.50	$63,757					
Virginia	Lynchburg	$0.54	$4,120	$34.09	$51,139	$55,258	0.80%	$444	$3,980	65
Virginia	Norfolk	$1.66	$12,783	$36.31	$54,459	$67,242	0.85%	$574	$4,678	80
Virginia	Richmond	$0.89	$6,890	$37.63	$56,452	$63,341	0.99%	$624	$4,678	76
Virginia	Roanoke	$0.83	$6,416	$33.65	$50,474	$56,890	1.00%	$570	$4,211	69
Virginia	Suffolk			$36.75	$55,123					
Virginia	Warrenton			$38.96	$58,444					
Virginia	Winchester			$39.41	$59,108					
Washington	Aberdeen			$45.18	$67,742					
Washington	Bellingham			$42.50	$63,757					
Washington	Bremerton	$1.67	$12,853	$45.00	$68,406	$81,259	0.94%	$760	$5,961	97
Washington	Everett, Index			$44.72	$67,078					
Washington	Pasco			$42.50	$63,757					
Washington	Richland	$1.21	$9,354	$42.95	$64,421	$73,775	1.20%	$883	$5,605	91
Washington	Seattle, Baring, Renton	$2.81	$21,667	$44.72	$67,078	$88,745	1.05%	$935	$6,615	108
Washington	Spokane	$1.34	$10,324	$41.62	$62,429	$72,753	1.25%	$907	$5,563	91
Washington	Tacoma	$1.62	$12,451	$45.18	$67,742	$80,193	1.22%	$981	$6,113	100
Washington	Vancouver			$43.39	$65,085					
Washington	Wenatchee			$44.28	$66,414					
Washington	Yakima	$1.61	$12,387	$41.18	$61,765	$74,152	1.05%	$779	$5,524	90
West Vir	Beckley			$41.62	$62,429					
West Vir	Bluefield			$36.31	$54,459					
West Vir	Charleston	$1.29	$9,969	$44.72	$67,078	$77,047	0.68%	$526	$5,457	89
West Vir	Clarksburg			$40.29	$60,436					
West Vir	Fairmont			$40.29	$60,436					
West Vir	Huntington	$1.09	$8,406	$45.60	$68,406	$76,812	0.81%	$625	$5,541	90
West Vir	Parkersburg	$1.22	$9,409	$41.18	$61,765	$71,174	1.03%	$733	$5,288	86

Table 4. Property Ownership Costs by City, 1985
Residential single family home.

Neighborhood location: 42% within city limits but not in city core, 53% suburban, 5% rural.

* Total annual cost = mortgage of 8% interest and principle rate on 80% of property value, plus property taxes.

State	City or Urban Area	SITE PRICE 7,700 sq ft lot $/sq ft	Dollars	CONSTRUCTION COST 1,500 sq ft house $/sq ft	Dollars	PROPERTY VALUE Dollars	PROPERTY TAXES rate Percent	tax Dollars	TOTAL ANNUAL PROPERTY COST* Dollars	Index
Wisconsin	Eau Claire			$39.41	$59,108					
Wisconsin	Fond Du Lac			$40.29	$60,436					
Wisconsin	Green Bay	$1.30	$9,981	$38.66	$58,444	$68,425	1.62%	$1,109	$5,488	89
Wisconsin	Janesville	$0.73	$5,592	$39.65	$59,772	$65,365	1.82%	$1,189	$5,372	88
Wisconsin	La Crosse			$41.18	$61,765					
Wisconsin	Madison	$1.79	$13,809	$38.96	$58,444	$72,253	1.74%	$1,258	$5,881	96
Wisconsin	Marinette			$38.96	$58,444					
Wisconsin	Milwaukee	$1.91	$14,720	$42.95	$64,421	$79,141	2.24%	$1,772	$6,837	111
Wisconsin	Rhinelander			$37.74	$56,616					
Wisconsin	Rice Lake			$36.51	$54,770					
Wisconsin	Sheboygan			$35.28	$52,924					
Wisconsin	Wausau			$34.05	$51,078					
Wyoming	Casper	$2.01	$15,489	$36.51	$54,770	$70,259	0.41%	$288	$4,782	78
Wyoming	Cheyenne			$39.39	$59,078					
Wyoming	Gillette			$38.97	$58,462					
Wyoming	Rock Spring			$38.56	$57,847					
Wyoming	Sheridan			$38.15	$57,232					
Wyoming	Thermopolis			$39.39	$59,078					
ALL CITY POPULATION WTD AVERAGE		$2.08	$16,016	$41.53	$62,295	$79,628	1.31%	$1,043	$6,134	100

Table D-1. Home Heating and Cooling Costs by City, 1984.

Note: Yrly heating (cooling) costs = degree-days x energy price x efficiency of use x improved living area (1,500 ft sq)
* price in $/million BTU # Efficiency in BTUs/sq ft degree-day

State	City or Urban Area	HEATING Degree-days/yr 65 deg	HEATING Price primary energy*	HEATING Efficiency of use #	HEATING Yearly heating cost	COOLING Degree-days/yr 70 deg	COOLING Price Electricity*	COOLING Efficiency of use #	COOLING Yearly heating cost	TOTAL HEATING & COOLING COST Yearly	TOTAL HEATING & COOLING COST Index
Alabama	Anniston, Bynum	2,872	$6.59	14.4	$409	1,043	$19.61	4.2	$129	$538	93
Alabama	Ashland	2,872	$6.59	14.4	$409	1,043	$19.61	4.2	$129	$538	93
Alabama	Birmingham	2,943	$6.59	14.3	$416	1,138	$19.61	4.3	$145	$561	97
Alabama	Brent	2,675	$6.59	14.7	$389	1,278	$19.61	4.6	$171	$560	97
Alabama	Dothan	2,062	$6.59	15.6	$319	1,460	$19.61	4.8	$208	$526	91
Alabama	Florence	3,279	$6.59	13.8	$447	995	$19.61	4.1	$121	$567	98
Alabama	Gadsden	3,160	$6.59	14.0	$438	958	$19.61	4.1	$115	$551	95
Alabama	Huntsville	3,279	$6.59	13.8	$447	995	$19.61	4.1	$121	$567	98
Alabama	Mobile	1,695	$6.59	16.2	$272	1,647	$19.61	5.1	$248	$520	90
Alabama	Montgomery	2,277	$6.59	15.3	$345	1,387	$19.61	4.7	$193	$537	93
Alabama	Munford	2,872	$6.59	14.4	$409	1,043	$19.61	4.2	$129	$538	93
Alabama	Selma	2,040	$6.59	15.7	$316	1,498	$19.61	4.9	$216	$532	92
Alabama	Tuscaloosa	2,675	$6.59	14.7	$389	1,278	$19.61	4.6	$171	$560	97
Alaska	Anchorage	10,816	$4.62	7.5	$562	0	$26.82	2.6	$0	$562	97
Alaska	Fairbanks	14,274	$4.62	7.5	$742	13	$26.82	2.6	$1	$743	129
Alaska	Juneau	9,105	$4.62	7.5	$473	0	$26.82	2.6	$0	$473	82
Arizona	Casa Grande	1,590	$7.20	16.4	$281	2,494	$24.85	6.0	$558	$839	145
Arizona	Douglas	2,796	$7.20	14.5	$439	848	$24.85	3.9	$123	$562	97
Arizona	Flagstaff	7,254	$7.20	7.7	$603	9	$24.85	2.6	$1	$604	105
Arizona	Kingman	3,119	$7.20	14.0	$473	1,187	$24.85	4.4	$195	$668	116
Arizona	Phoenix	1,442	$7.20	16.5	$257	2,721	$24.85	6.0	$609	$866	150
Arizona	Prescott	4,949	$7.20	11.2	$600	220	$24.85	2.9	$24	$624	108
Arizona	Tucson	1,734	$7.20	16.1	$302	1,907	$24.85	5.5	$392	$695	120
Arizona	Yuma	983	$7.20	16.5	$175	3,123	$24.85	6.0	$698	$874	151
Arkansas	Batesville	3,572	$5.21	13.3	$372	1,023	$22.51	4.2	$144	$516	89
Arkansas	Blytheville	3,432	$5.21	13.5	$363	1,238	$22.51	4.5	$188	$551	95
Arkansas	El Dorado	2,755	$5.21	14.6	$314	1,280	$22.51	4.6	$197	$511	88
Arkansas	Fayetteville	4,174	$5.21	12.4	$405	762	$22.51	3.8	$97	$502	87
Arkansas	Forest City	3,207	$5.21	13.9	$348	1,289	$22.51	4.6	$199	$547	95
Arkansas	Fort Smith	3,477	$5.21	13.5	$366	1,229	$22.51	4.5	$186	$552	96
Arkansas	Hot Springs	2,932	$5.21	14.3	$328	1,349	$22.51	4.7	$212	$540	93
Arkansas	Jonesboro	3,521	$5.21	13.4	$369	1,207	$22.51	4.4	$181	$550	95
Arkansas	Little Rock	3,152	$5.21	14.0	$344	1,272	$22.51	4.5	$196	$540	93
Arkansas	Pine Bluff	2,729	$5.21	14.6	$312	1,408	$22.51	4.8	$226	$538	93
Calif	Bakersfield	2,128	$5.75	15.5	$285	1,532	$21.98	4.9	$250	$535	93
Calif	Bishop	4,288	$5.75	12.2	$453	517	$21.98	3.4	$58	$510	88
Calif	Chico	2,878	$5.75	14.4	$357	767	$21.98	3.8	$95	$453	78
Calif	Eureka	4,725	$5.75	11.6	$472	0	$21.98	2.6	$0	$472	82
Calif	Fairfield, Vacavle, Elmra	2,686	$5.75	14.7	$340	306	$21.98	3.1	$31	$371	64

Table D-1. Home Heating and Cooling Costs by City, 1984.

Note: Yrly heating (cooling) costs = degree-days x energy price x efficiency of use x improved living area (1,500 ft sq)
* price in $/million BTU # Efficiency in BTUs/sq ft degree-day

State	City or Urban Area	HEATING: Degree-days/yr 65 deg	HEATING: Price primary energy*	HEATING: Efficiency of use #	HEATING: Yearly heating cost	COOLING: Degree-days/yr 70 deg	COOLING: Price Electricity*	COOLING: Efficiency of use #	COOLING: Yearly heating cost	TOTAL HEATING & COOLING COST: Yearly	TOTAL HEATING & COOLING COST: Index
Calif	Fresno	2,647	$5.75	14.8	$337	1,042	$21.98	4.2	$144	$481	83
Calif	Los Angeles (1)	1,595	$5.75	16.4	$225	226	$21.98	2.9	$22	$247	43
Calif	Marysville	2,551	$5.75	14.9	$328	837	$21.98	3.9	$107	$435	75
Calif	Monterey	3,170	$5.75	13.9	$381	0	$21.98	2.6	$0	$381	66
Calif	Oakland, Newark	2,877	$5.75	14.4	$357	11	$21.98	2.6	$1	$358	62
Calif	Pacifica, El Granada	3,161	$5.75	14.0	$381	7	$21.98	2.6	$1	$381	66
Calif	Palm Springs	1,109	$5.75	16.5	$158	2,716	$21.98	6.0	$537	$695	120
Calif	Placerville	4,087	$5.75	12.5	$442	356	$21.98	3.1	$37	$479	83
Calif	Redding	2,544	$5.75	14.9	$327	1,383	$21.98	4.7	$215	$542	94
Calif	Redwood City, San Bruno	2,600	$5.75	14.8	$332	82	$21.98	2.7	$7	$340	59
Calif	Sacramento	2,772	$5.75	14.6	$348	582	$21.98	3.5	$67	$415	72
Calif	Saint Helena, Rutherford	2,879	$5.75	14.4	$357	163	$21.98	2.9	$17	$375	65
Calif	Salinas	3,170	$5.75	13.9	$381	0	$21.98	2.6	$0	$381	66
Calif	San Bernardino, Barstow	1,777	$5.75	16.1	$246	962	$21.98	4.1	$129	$376	65
Calif	San Diego	1,284	$5.75	16.5	$183	279	$21.98	3.0	$28	$211	36
Calif	San Francisco	3,161	$5.75	14.0	$381	7	$21.98	2.6	$1	$381	66
Calif	San Jose	2,439	$5.75	15.1	$317	102	$21.98	2.8	$9	$326	56
Calif	San Luis Obispo	2,498	$5.75	15.0	$323	39	$21.98	2.7	$3	$326	56
Calif	Santa Barbara, Snta Maria	1,993	$5.75	15.8	$271	77	$21.98	2.7	$7	$278	48
Calif	Santa Rosa, Bodega	2,980	$5.75	14.2	$366	73	$21.98	2.7	$7	$373	64
Calif	Stockton	2,674	$5.75	14.7	$339	759	$21.98	3.8	$94	$433	75
Calif	Susanville	6,233	$5.75	9.3	$498	120	$21.98	2.8	$11	$509	88
Calif	Visalia	2,460	$5.75	15.0	$319	1,049	$21.98	4.2	$145	$464	80
Calif	Winters	2,593	$5.75	14.8	$332	814	$21.98	3.8	$103	$435	75
Colorado	Boulder, Allenspark	5,460	$5.45	10.4	$466	368	$20.75	3.2	$36	$503	87
Colorado	Castle Rock	6,346	$5.45	9.1	$472	193	$20.75	2.9	$17	$489	85
Colorado	Central City	5,460	$5.45	10.4	$466	368	$20.75	3.2	$36	$503	87
Colorado	Colorado Springs, Calhan	6,346	$5.45	9.1	$472	193	$20.75	2.9	$17	$489	85
Colorado	Denver	6,014	$5.45	9.6	$472	289	$20.75	3.0	$27	$499	86
Colorado	Florissant	6,346	$5.45	9.1	$472	193	$20.75	2.9	$17	$489	85
Colorado	Fort Collins	6,483	$5.45	8.9	$471	164	$20.75	2.9	$15	$485	84
Colorado	Grand Junction	5,683	$5.45	10.1	$469	669	$20.75	3.6	$75	$545	94
Colorado	Greeley	6,442	$5.45	8.9	$471	265	$20.75	3.0	$25	$496	86
Colorado	La Junta	5,289	$5.45	10.7	$463	753	$20.75	3.8	$88	$551	95
Colorado	Lake George	10,754	$5.45	7.5	$659	0	$20.75	2.6	$0	$659	114
Colorado	Montrose	6,400	$5.45	9.0	$471	219	$20.75	2.9	$20	$491	85
Colorado	Pueblo	5,465	$5.45	10.4	$466	555	$20.75	3.4	$60	$526	91
Colorado	Sterling	6,614	$5.45	8.7	$469	334	$20.75	3.1	$32	$502	87
Colorado	Strasburg	6,014	$5.45	9.6	$472	289	$20.75	3.0	$27	$499	86
Colorado	Trinidad	5,544	$5.45	10.3	$468	311	$20.75	3.1	$30	$497	86
Conn	Hartford	6,174	$8.32	9.4	$721	269	$31.10	3.0	$38	$759	131
Conn	New Haven, Waterbury	5,501	$8.32	10.4	$713	297	$31.10	3.1	$42	$755	131
Conn	Norwich, New London	5,501	$8.32	10.4	$713	297	$31.10	3.1	$42	$755	131

Table D-1. Home Heating and Cooling Costs by City, 1984.

Note: Yrly heating (cooling) costs = degree-days x energy price x efficiency of use x improved living area (1,500 ft sq)
* price in $/million BTU # Efficiency in BTUs/sq ft degree-day

		HEATING				COOLING					
State	City or Urban Area	Degree-days/yr 65 deg	Price primary energy*	Efficiency of use #	Yearly heating cost	Degree-days/yr 70 deg	Price Electricity*	Efficiency of use #	Yearly heating cost	TOTAL HEATING & COOLING COST Yearly	Index
Conn	Stamford, Bdgeprt, Grnwch	6,100	$8.32	9.5	$721	165	$31.10	2.9	$22	$743	128
Conn	Torrington	6,174	$8.32	9.4	$721	269	$31.10	3.0	$38	$759	131
Delaware	Dover	4,356	$7.69	12.1	$610	582	$28.11	3.5	$86	$695	120
Delaware	Wilmington	4,986	$7.69	11.2	$643	484	$28.11	3.3	$68	$711	123
Dist Col	Washington, D. C.	4,122	$7.67	12.5	$608	774	$19.96	3.8	$88	$696	120
Florida	Cocoa	607	$9.49	16.5	$143	1,903	$25.29	5.5	$398	$540	94
Florida	Daytona Beach	900	$9.49	16.5	$211	1,692	$25.29	5.2	$333	$544	94
Florida	Fort Lauderdale	254	$9.49	16.5	$60	2,434	$25.29	6.0	$554	$614	106
Florida	Fort Myers	441	$9.49	16.5	$104	2,301	$25.29	6.0	$524	$627	109
Florida	Fort Pierce	500	$9.49	16.5	$117	1,980	$25.29	5.6	$423	$540	93
Florida	Gainesville	1,069	$9.49	16.5	$251	1,707	$25.29	5.2	$337	$589	102
Florida	Jacksonville	1,402	$9.49	16.5	$329	1,484	$25.29	4.9	$274	$603	104
Florida	Lakeland	618	$9.49	16.5	$145	2,136	$25.29	5.9	$476	$621	107
Florida	Miami	199	$9.49	16.5	$47	2,564	$25.29	6.0	$584	$630	109
Florida	Naples	323	$9.49	16.5	$76	2,227	$25.29	6.0	$508	$583	101
Florida	Orlando	656	$9.49	16.5	$154	2,091	$25.29	5.8	$460	$614	106
Florida	Panama City	1,571	$9.49	16.4	$367	1,664	$25.29	5.1	$325	$692	120
Florida	Pensacola	1,571	$9.49	16.4	$367	1,664	$25.29	5.1	$325	$692	120
Florida	Saint Petersburg	545	$9.49	16.5	$128	2,327	$25.29	6.0	$530	$658	114
Florida	Sarasota	616	$9.49	16.5	$145	1,868	$25.29	5.5	$387	$531	92
Florida	Tallahassee	1,652	$9.49	16.3	$383	1,504	$25.29	4.9	$280	$662	115
Florida	Tampa	739	$9.49	16.5	$174	2,039	$25.29	5.7	$442	$616	107
Florida	West Palm Beach	262	$9.49	16.5	$62	2,299	$25.29	6.0	$523	$585	101
Georgia	Albany	2,062	$6.69	15.6	$324	1,460	$19.64	4.8	$208	$532	92
Georgia	Athens	2,965	$6.69	14.3	$424	947	$19.64	4.0	$113	$537	93
Georgia	Atlanta	3,021	$6.69	14.2	$430	942	$19.64	4.0	$112	$542	94
Georgia	Augusta	2,568	$6.69	14.9	$383	1,136	$19.64	4.3	$145	$528	91
Georgia	Brunswick	1,385	$6.69	16.5	$229	1,628	$19.64	5.1	$244	$473	82
Georgia	Calhoun	3,122	$6.69	14.0	$439	914	$19.64	4.0	$108	$547	95
Georgia	Carters	3,122	$6.69	14.0	$439	914	$19.64	4.0	$108	$547	95
Georgia	Columbus	2,356	$6.69	15.2	$359	1,281	$19.64	4.6	$172	$531	92
Georgia	Covington, New Born	2,841	$6.69	14.5	$412	945	$19.64	4.0	$113	$525	91
Georgia	Dublin	2,337	$6.69	15.2	$357	1,300	$19.64	4.6	$176	$533	92
Georgia	Gainesville	3,404	$6.69	13.6	$464	767	$19.64	3.8	$85	$550	95
Georgia	Griffin	2,279	$6.69	15.3	$350	1,347	$19.64	4.7	$185	$535	93
Georgia	Hoganaville	2,279	$6.69	15.3	$350	1,347	$19.64	4.7	$185	$535	93
Georgia	Jackson	2,279	$6.69	15.3	$350	1,347	$19.64	4.7	$185	$535	93
Georgia	Macon	2,279	$6.69	15.3	$350	1,347	$19.64	4.7	$185	$535	93
Georgia	Milner	2,279	$6.69	15.3	$350	1,347	$19.64	4.7	$185	$535	93
Georgia	Newnan	2,722	$6.69	14.6	$400	944	$19.64	4.0	$112	$512	89

Table D-1. Home Heating and Cooling Costs by City, 1984.

Note: Yrly heating (cooling) costs = degree-days x energy price x efficiency of use x improved living area (1,500 ft sq)
* price in $/million BTU # Efficiency in BTUs/sq ft degree-day

State	City or Urban Area	HEATING Degree-days/yr 65 deg	HEATING Price primary energy*	HEATING Efficiency of use #	HEATING Yearly heating cost	COOLING Degree-days/yr 70 deg	COOLING Price Electricity*	COOLING Efficiency of use #	COOLING Yearly heating cost	TOTAL HEATING & COOLING COST Yearly	TOTAL HEATING & COOLING COST Index
Georgia	Rome	3,122	$6.69	14.0	$439	914	$19.64	4.0	$108	$547	96
Georgia	Savannah	1,921	$6.69	15.9	$306	1,349	$19.64	4.7	$185	$491	85
Georgia	Valdosta	1,672	$6.69	16.2	$273	1,438	$19.64	4.8	$203	$476	82
Georgia	Waycross	1,876	$6.69	15.9	$300	1,385	$19.34	4.7	$193	$492	85
Georgia	Zebulon	2,279	$6.69	15.3	$350	1,347	$19.64	4.7	$185	$535	93
Hawaii	Honolulu	0	$16.04	16.5	$0	2,598	$36.61	6.0	$856	$856	148
Idaho	Boise	5,802	$6.70	9.9	$579	362	$11.02	3.2	$19	$597	103
Idaho	Idaho Falls	6,626	$6.70	7.5	$650	73	$11.02	2.7	$3	$653	113
Idaho	Kellogg	6,781	$6.70	8.4	$574	112	$11.02	2.8	$5	$579	100
Idaho	Lewiston	5,429	$6.70	10.5	$573	359	$11.02	3.1	$19	$591	102
Idaho	Pocatello	7,123	$6.70	7.9	$566	169	$11.02	2.9	$8	$574	99
Idaho	Twin Falls	6,704	$6.70	8.5	$576	143	$11.02	2.8	$7	$582	101
Illinois	Alton	5,129	$5.29	11.0	$446	801	$27.11	3.8	$125	$570	99
Illinois	Aurora	6,618	$5.29	8.7	$456	311	$27.11	3.1	$39	$494	86
Illinois	Carbondale	4,563	$5.29	11.8	$428	762	$27.11	3.8	$117	$545	94
Illinois	Centralia	5,049	$5.29	11.1	$444	761	$27.11	3.8	$116	$560	97
Illinois	Champaign	5,758	$5.29	10.0	$456	503	$27.11	3.4	$69	$525	91
Illinois	Chicago (2)	6,455	$5.29	8.9	$457	321	$27.11	3.1	$40	$497	86
Illinois	Freeport	6,952	$5.29	8.2	$450	311	$27.11	3.1	$39	$489	85
Illinois	Galesburg	6,302	$5.29	9.2	$458	439	$27.11	3.3	$58	$516	89
Illinois	Glen Ellyn	6,618	$5.29	8.7	$456	311	$27.11	3.1	$39	$494	86
Illinois	Joliet	5,912	$5.29	9.8	$458	517	$27.11	3.4	$71	$529	92
Illinois	Kankakee	5,912	$5.29	9.8	$458	517	$27.11	3.4	$71	$529	92
Illinois	Mattoon	5,616	$5.29	10.2	$455	545	$27.11	3.4	$76	$531	92
Illinois	Olney	4,843	$5.29	11.4	$438	699	$27.11	3.7	$104	$542	94
Illinois	Peoria	6,226	$5.29	9.3	$458	465	$27.11	3.3	$63	$521	90
Illinois	Quincy	5,789	$5.29	9.9	$457	591	$27.11	3.5	$84	$541	94
Illinois	Rock Island, Moline	6,498	$5.29	8.9	$457	429	$27.11	3.3	$57	$514	89
Illinois	Rockford	6,952	$5.29	8.2	$450	311	$27.11	3.1	$39	$489	85
Illinois	Springfield	5,654	$5.29	10.1	$455	614	$27.11	3.5	$88	$544	94
Illinois	Waukegon	6,881	$5.29	8.3	$452	238	$27.11	3.0	$29	$480	83
Indiana	Bloomington	5,509	$6.01	10.4	$515	457	$20.19	3.3	$46	$561	97
Indiana	Evansville	4,260	$6.01	12.3	$472	924	$20.19	4.0	$112	$584	101
Indiana	Fort Wayne	6,320	$6.01	9.1	$520	338	$20.19	3.1	$32	$552	96
Indiana	Gary	6,251	$6.01	9.2	$520	419	$20.19	3.2	$41	$562	97
Indiana	Greensburg	5,562	$6.01	10.3	$516	379	$20.19	3.2	$36	$552	96
Indiana	Indianapolis	5,650	$6.01	10.2	$517	470	$20.19	3.3	$47	$565	98
Indiana	Kokomo	6,035	$6.01	9.6	$520	493	$20.19	3.4	$50	$571	99
Indiana	Lafayette	6,035	$6.01	9.6	$520	493	$20.19	3.4	$50	$571	99

Table D-1. Home Heating and Cooling Costs by City, 1984.

Note: Yrly heating (cooling) costs = degree-days x energy price x efficiency of use x improved living area (1,500 ft sq)
* price in $/million BTU # Efficiency in BTUs/sq ft degree-day

		HEATING				COOLING					
State	City or Urban Area	Degree-days/yr 65 deg	Price primary energy*	Efficiency of use #	Yearly heating cost	Degree-days/yr 70 deg	Price Electricity*	Efficiency of use #	Yearly heating cost	TOTAL HEATING & COOLING COST Yearly	Index
Indiana	Muncie	5,884	$6.01	9.8	$520	426	$20.19	3.3	$42	$562	97
Indiana	New Albany	4,525	$6.01	11.9	$484	723	$20.19	3.7	$81	$566	98
Indiana	Richmond	5,973	$6.01	9.7	$520	292	$20.19	3.0	$27	$547	95
Indiana	South Bend	6,377	$6.01	9.0	$520	308	$20.19	3.1	$29	$549	95
Indiana	Terre Haute	5,521	$6.01	10.4	$515	512	$20.19	3.4	$52	$568	98
Iowa	Burlington	6,181	$5.80	9.3	$502	490	$23.12	3.3	$57	$559	97
Iowa	Cedar Rapids	6,671	$5.80	8.8	$499	386	$23.12	3.2	$43	$541	94
Iowa	Council Bluffs	6,592	$5.80	8.7	$500	494	$23.12	3.4	$57	$557	96
Iowa	Creston	6,484	$5.80	8.9	$501	449	$23.12	3.3	$51	$552	96
Iowa	Davenport	6,274	$5.80	9.2	$502	508	$23.12	3.4	$59	$562	97
Iowa	Des Moines	6,554	$5.80	8.8	$500	520	$23.12	3.4	$61	$561	97
Iowa	Dubuque	6,749	$5.80	8.5	$498	391	$23.12	3.2	$43	$541	94
Iowa	Fort Dodge	7,175	$5.80	7.8	$488	370	$23.12	3.2	$41	$529	92
Iowa	Marshalltown	7,013	$5.80	8.1	$492	355	$23.12	3.1	$39	$531	92
Iowa	Mason City	7,666	$5.80	7.5	$500	296	$23.12	3.1	$31	$532	92
Iowa	Ottumwa	6,339	$5.80	9.1	$502	519	$23.12	3.4	$61	$563	97
Iowa	Sioux City	6,947	$5.80	8.2	$494	479	$23.12	3.3	$55	$549	95
Iowa	Spencer	7,840	$5.80	7.5	$512	283	$23.12	3.0	$30	$541	94
Iowa	Waterloo	7,537	$5.80	7.5	$492	300	$23.12	3.1	$32	$524	91
Kansas	Arkansas City	4,787	$4.72	11.5	$389	1,051	$23.45	4.2	$156	$545	94
Kansas	Atchison	5,261	$4.72	10.8	$400	728	$23.45	3.7	$95	$496	86
Kansas	Colby	6,150	$4.72	9.4	$409	558	$23.45	3.5	$68	$477	82
Kansas	Dodge City	5,059	$4.72	11.1	$396	899	$23.45	4.0	$126	$522	90
Kansas	Emporia	5,121	$4.72	11.0	$398	831	$23.45	3.9	$113	$511	88
Kansas	Garden City	5,261	$4.72	10.8	$400	847	$23.45	3.9	$116	$517	89
Kansas	Great Bend	4,839	$4.72	11.4	$390	1,042	$23.45	4.2	$154	$544	94
Kansas	Hays	5,659	$4.72	10.1	$406	779	$23.45	3.8	$104	$510	88
Kansas	Independence	4,288	$4.72	12.2	$372	1,015	$23.45	4.2	$148	$520	90
Kansas	Kansas City	5,283	$4.72	10.7	$401	759	$23.45	3.8	$100	$501	87
Kansas	Lawrence	4,819	$4.72	11.4	$390	951	$23.45	4.1	$136	$526	91
Kansas	Leavenworth	5,184	$4.72	10.9	$399	778	$23.45	3.8	$104	$503	87
Kansas	Liberal	4,315	$4.72	12.2	$373	1,061	$23.45	4.2	$158	$530	92
Kansas	Louisburg	4,783	$4.72	11.5	$389	902	$23.45	4.0	$126	$515	89
Kansas	Salina	5,187	$4.72	10.9	$399	976	$23.45	4.1	$141	$539	93
Kansas	Topeka	5,319	$4.72	10.7	$402	806	$23.45	3.8	$109	$510	88
Kansas	Wichita	4,787	$4.72	11.5	$389	1,051	$23.45	4.2	$156	$545	94
Kentucky	Ashland	4,900	$5.65	11.3	$469	544	$17.56	3.4	$49	$519	90
Kentucky	Bowling Green	4,309	$5.65	12.2	$446	793	$17.56	3.8	$80	$525	91
Kentucky	Covington	5,247	$5.65	10.8	$479	497	$17.56	3.4	$44	$523	90
Kentucky	Elizabethtown	4,417	$5.65	12.0	$451	758	$17.56	3.8	$75	$526	91
Kentucky	Lexington	4,814	$5.65	11.4	$467	594	$17.56	3.5	$55	$521	90

Table D-1. Home Heating and Cooling Costs by City, 1984.

Note: Yrly heating (cooling) costs = degree-days x energy price x efficiency of use x improved living area (1,500 ft sq)
* price in $/million BTU # Efficiency in BTUs/sq ft degree-day

		HEATING				COOLING					
State	City or Urban Area	Degree-days/yr 65 deg	Price primary energy*	Efficiency of use #	Yearly heating cost	Degree-days/yr 70 deg	Price Electricity*	Efficiency of use #	Yearly heating cost	TOTAL HEATING & COOLING COST Yearly	Index
Kentucky	Louisville	4,525	$5.65	11.9	$455	723	$17.56	3.7	$71	$526	91
Kentucky	Madisonville	4,156	$5.65	12.4	$438	755	$17.56	3.8	$75	$513	89
Kentucky	Middlesboro	4,424	$5.65	12.0	$451	516	$17.56	3.4	$46	$497	86
Kentucky	Owensboro	4,279	$5.65	12.3	$444	800	$17.56	3.8	$81	$525	91
Kentucky	Paducah	4,130	$5.65	12.5	$437	895	$17.56	4.0	$94	$530	92
Kentucky	Pikesville	5,269	$5.65	10.7	$480	327	$17.56	3.1	$27	$506	88
Kentucky	Somerset	4,435	$5.65	12.0	$452	496	$17.56	3.4	$44	$495	86
Louisiana	Alexandria	1,961	$5.96	15.8	$277	1,565	$20.25	5.0	$237	$514	89
Louisiana	Baton Rouge	1,673	$5.96	16.2	$243	1,592	$20.25	5.0	$244	$486	84
Louisiana	Bogalusa	1,877	$5.96	15.9	$267	1,556	$20.25	5.0	$235	$503	87
Louisiana	Gonzales	1,673	$5.96	16.2	$243	1,592	$20.25	5.0	$244	$486	84
Louisiana	Hammond	1,711	$5.96	16.2	$248	1,457	$20.25	4.8	$214	$461	80
Louisiana	Houma	1,315	$5.96	16.5	$194	1,677	$20.25	5.2	$263	$457	79
Louisiana	Lafayette	1,560	$5.96	16.4	$229	1,652	$20.25	5.1	$257	$486	84
Louisiana	Lake Charles	1,579	$5.96	16.4	$231	1,659	$20.25	5.1	$259	$490	85
Louisiana	Metairie, Gretna	1,490	$5.96	16.5	$220	1,650	$20.25	5.1	$257	$477	83
Louisiana	Monroe	2,404	$5.96	15.1	$325	1,447	$20.25	4.8	$212	$537	93
Louisiana	New Iberia	1,555	$5.96	16.4	$228	1,611	$20.25	5.1	$248	$476	82
Louisiana	New Orleans	1,490	$5.96	16.5	$220	1,650	$20.25	5.1	$257	$477	83
Louisiana	Port Sulphur	1,490	$5.96	16.5	$220	1,650	$20.25	5.1	$257	$477	83
Louisiana	Reserve	1,625	$5.96	16.3	$237	1,647	$20.25	5.1	$256	$493	85
Louisiana	Shreveport	2,269	$5.96	15.3	$311	1,532	$20.25	4.9	$230	$541	94
Maine	Augusta	7,598	$7.80	7.5	$667	122	$23.68	2.8	$12	$679	117
Maine	Bangor	7,947	$7.80	7.5	$697	68	$23.68	2.7	$7	$704	122
Maine	Machias	7,947	$7.80	7.5	$697	68	$23.68	2.7	$7	$704	122
Maine	Portland	7,501	$7.80	7.5	$658	67	$23.68	2.7	$6	$665	115
Maine	Presque Isle	9,237	$7.80	7.5	$811	41	$23.68	2.7	$4	$814	141
Maryland	Annapolis, Glen Burnie	4,414	$7.58	12.0	$605	672	$21.51	3.6	$79	$683	118
Maryland	Baltimore	4,706	$7.58	11.6	$621	571	$21.51	3.5	$64	$685	118
Maryland	Cambridge	4,331	$7.58	12.2	$599	578	$21.51	3.5	$65	$664	115
Maryland	Cumberland	5,106	$7.58	11.0	$638	395	$21.51	3.2	$41	$679	117
Maryland	Easton	4,211	$7.58	12.4	$592	651	$21.51	3.6	$76	$667	115
Maryland	Edgewood	4,706	$7.58	11.6	$621	571	$21.51	3.5	$64	$685	118
Maryland	Hagerstown	5,086	$7.58	11.0	$637	421	$21.51	3.2	$44	$681	118
Maryland	Randalletown, Reisterstwn	4,706	$7.58	11.6	$621	571	$21.51	3.5	$64	$685	118
Maryland	Salisbury	4,016	$7.58	12.7	$578	587	$21.51	3.5	$66	$644	111
Maryland	Silver Springs	4,122	$7.58	12.5	$586	774	$21.51	3.8	$95	$680	118
Mass	Boston, Lexington, Milton	5,593	$7.87	10.2	$676	280	$29.59	3.0	$38	$714	124
Mass	Brockton	6,276	$7.87	9.2	$681	152	$29.59	2.8	$19	$701	121

Table D-1. Home Heating and Cooling Costs by City, 1984.

Note: Yrly heating (cooling) costs = degree-days x energy price x efficiency of use x improved living area (1,500 ft sq)
* price in $/million BTU # Efficiency in BTUs/sq ft degree-day

State	City or Urban Area	HEATING: Degree-days/yr 65 deg	HEATING: Price primary energy*	HEATING: Efficiency of use #	HEATING: Yearly heating cost	COOLING: Degree-days/yr 70 deg	COOLING: Price Electricity*	COOLING: Efficiency of use #	COOLING: Yearly heating cost	TOTAL HEATING & COOLING COST: Yearly	TOTAL HEATING & COOLING COST: Index
Mass	Concord	5,593	$7.87	10.2	$676	280	$29.59	3.0	$38	$714	124
Mass	Hyannis	5,965	$7.87	9.7	$681	134	$29.59	2.8	$17	$698	121
Mass	Lowell	6,232	$7.87	9.3	$682	199	$29.59	2.9	$26	$707	122
Mass	Lynn	5,593	$7.87	10.2	$676	280	$29.59	3.0	$38	$714	124
Mass	New Bedford	5,305	$7.87	10.7	$669	316	$29.59	3.1	$43	$712	123
Mass	Norwood	5,593	$7.87	10.2	$676	280	$29.59	3.0	$38	$714	124
Mass	Pittsfield	6,927	$7.87	8.2	$671	173	$29.59	2.9	$22	$693	120
Mass	Salem	5,593	$7.87	10.2	$676	280	$29.59	3.0	$38	$714	124
Mass	Springfield	5,953	$7.87	9.7	$681	289	$29.59	3.0	$39	$720	125
Mass	Worcester, Ftchbrg, Wbstr	6,950	$7.87	8.2	$670	101	$29.59	2.8	$12	$682	118
Michigan	Alpena	8,410	$6.22	7.5	$588	39	$21.40	2.7	$3	$592	102
Michigan	Ann Arbor	6,348	$6.22	9.1	$538	303	$21.40	3.1	$30	$568	98
Michigan	Charlotte	6,956	$6.22	8.2	$529	193	$21.40	2.9	$18	$547	95
Michigan	Clinton, Adrian	6,648	$6.22	8.6	$535	237	$21.40	3.0	$23	$558	96
Michigan	Detroit	6,563	$6.22	8.8	$536	238	$21.40	3.0	$23	$559	97
Michigan	Flint, Fenton, Goodrich	7,068	$6.22	8.0	$527	155	$21.40	2.8	$14	$541	94
Michigan	Grand Rapids	6,927	$6.22	8.2	$530	235	$21.40	3.0	$22	$552	96
Michigan	Hasburg	6,987	$6.22	8.1	$529	206	$21.40	2.9	$19	$548	95
Michigan	Imlay City, Hadley	6,563	$6.22	8.8	$536	238	$21.40	3.0	$23	$559	97
Michigan	Ironwood	9,190	$6.22	7.5	$643	82	$21.40	2.7	$7	$650	112
Michigan	Kalamazoo	6,281	$6.22	9.2	$539	318	$21.40	3.1	$32	$570	99
Michigan	Lansing	6,987	$6.22	8.1	$529	206	$21.40	2.9	$19	$548	95
Michigan	Marquette	8,445	$6.22	5.9	$463	57	$21.40	2.7	$5	$468	81
Michigan	Muskegon	6,925	$6.22	8.2	$530	151	$21.40	2.8	$14	$544	94
Michigan	Petersburg, Luna Pier	6,346	$6.22	9.1	$538	303	$21.40	3.1	$30	$568	98
Michigan	Petosky	7,977	$6.22	7.5	$558	93	$21.40	2.7	$8	$566	98
Michigan	Port Huron	6,611	$6.22	8.7	$536	246	$21.40	3.0	$24	$559	97
Michigan	Portland	6,987	$6.22	8.1	$529	206	$21.40	2.9	$19	$548	95
Michigan	Saint Johns	6,766	$6.22	8.4	$533	210	$21.40	2.9	$20	$553	96
Michigan	Sault Sainte Marie	9,305	$6.22	7.5	$651	27	$21.40	2.6	$2	$653	113
Michigan	Stockbridge	6,987	$6.22	8.1	$529	206	$21.40	2.9	$19	$548	95
Michigan	Traverse City	7,795	$6.22	7.5	$545	144	$21.40	2.8	$13	$558	97
Minnesota	Brainerd	8,823	$6.46	7.5	$641	173	$19.84	2.9	$15	$656	113
Minnesota	Chanhassen	8,007	$6.46	7.5	$582	302	$19.84	3.1	$28	$609	105
Minnesota	Duluth, Virginia	9,901	$6.46	7.5	$720	35	$19.84	2.7	$3	$722	125
Minnesota	Hutchinson	8,328	$6.46	7.5	$605	244	$19.84	3.0	$22	$627	108
Minnesota	Mankato	7,967	$6.46	7.5	$579	294	$19.84	3.0	$27	$606	105
Minnesota	Minneapolis	8,007	$6.46	7.5	$582	302	$19.84	3.1	$28	$609	105
Minnesota	Montevideo	8,291	$6.46	7.5	$603	287	$19.84	3.0	$26	$629	109
Minnesota	Northfield	7,967	$6.46	7.5	$579	294	$19.84	3.0	$27	$606	105
Minnesota	Owatonna	8,277	$6.46	7.5	$602	183	$19.84	2.9	$16	$617	107
Minnesota	Princeton	8,823	$6.46	7.5	$641	173	$19.84	2.9	$15	$656	113
Minnesota	Rochester	8,277	$6.46	7.5	$602	183	$19.84	2.9	$16	$617	107

Table D-1. Home Heating and Cooling Costs by City, 1984.

Note: Yrly heating (cooling) costs = degree-days x energy price x efficiency of use x improved living area (1,800 ft sq)
* price in $/million BTU # Efficiency in BTUs/sq ft degree-day

		HEATING				COOLING					
State	City or Urban Area	Degree-days/yr 65 deg	Price primary energy*	Efficiency of use #	Yearly heating cost	Degree-days/yr 70 deg	Price Electricity*	Efficiency of use #	Yearly heating cost	TOTAL HEATING & COOLING COST Yearly	Index
Minnesota	Saint Cloud, Kimball Pra	8,965	$6.46	7.5	$652	145	$19.84	2.8	$12	$664	115
Minnesota	Saint Paul	8,007	$6.46	7.5	$582	302	$19.84	3.1	$28	$609	106
Minnesota	Winona	7,819	$6.46	7.5	$568	292	$19.84	3.0	$26	$595	103
Minnesota	Winthrop	8,328	$6.46	7.5	$605	244	$19.84	3.0	$22	$627	108
Miss	Clarksdale	2,963	$6.26	14.3	$397	1,436	$18.38	4.8	$190	$587	102
Miss	Columbus	2,860	$6.26	14.4	$387	1,197	$18.38	4.4	$146	$534	92
Miss	Greenville	2,635	$6.26	14.8	$365	1,386	$18.38	4.7	$180	$546	94
Miss	Greenwood	2,716	$6.26	14.6	$373	1,382	$18.38	4.7	$180	$553	96
Miss	Gulfport	1,539	$6.26	16.4	$238	1,621	$18.38	5.1	$227	$465	80
Miss	Hattiesburg	2,027	$6.26	15.7	$299	1,412	$18.38	4.8	$185	$484	84
Miss	Jackson	2,389	$6.26	15.1	$340	1,398	$18.38	4.7	$183	$522	90
Miss	Meridian	2,479	$6.26	15.0	$349	1,303	$18.38	4.6	$165	$514	89
Miss	Natchez	1,941	$6.26	15.8	$289	1,506	$18.38	4.9	$204	$492	85
Miss	Tupelo	3,088	$6.26	14.1	$408	1,205	$18.38	4.4	$148	$556	96
Missouri	Cape Giradeau	4,074	$5.98	12.6	$459	988	$18.93	4.1	$115	$575	99
Missouri	Chillicothe	5,346	$5.98	10.6	$509	718	$18.93	3.7	$78	$586	101
Missouri	Clinton	5,203	$5.98	10.8	$506	749	$18.93	3.7	$80	$586	101
Missouri	Columbia	5,206	$5.98	10.8	$506	707	$18.93	3.7	$74	$580	100
Missouri	Farmington, Bismark	4,843	$5.98	11.4	$495	625	$18.93	3.6	$63	$558	97
Missouri	Hannibal	5,613	$5.98	10.2	$514	569	$18.93	3.5	$59	$573	99
Missouri	Hermann, Owensville	4,898	$5.98	11.3	$497	744	$18.93	3.7	$79	$576	100
Missouri	Jefferson City	4,897	$5.98	11.3	$497	744	$18.93	3.7	$79	$576	100
Missouri	Joplin	4,321	$5.98	12.2	$472	1,002	$18.93	4.1	$118	$590	102
Missouri	Kansas City, Independence	5,283	$5.98	10.7	$508	769	$18.93	3.8	$81	$589	102
Missouri	Kirksville	5,848	$5.98	9.9	$517	510	$18.93	3.4	$49	$566	98
Missouri	Montgomery City, Hgh Hill	5,206	$5.98	10.8	$506	707	$18.93	3.7	$74	$580	100
Missouri	New Hartford	5,613	$5.98	10.2	$514	569	$18.93	3.5	$59	$573	99
Missouri	Plattsburg	5,453	$5.98	10.5	$511	770	$18.93	3.8	$83	$594	103
Missouri	Poplar Bluff	4,101	$5.98	12.5	$461	914	$18.93	4.0	$104	$565	98
Missouri	Potasi	4,843	$5.98	11.4	$495	625	$18.93	3.6	$63	$558	97
Missouri	Rolla	4,843	$5.98	11.4	$495	625	$18.93	3.6	$63	$558	97
Missouri	Saint Joseph	5,453	$5.98	10.5	$511	770	$18.93	3.8	$83	$594	103
Missouri	Saint Louis	4,938	$5.98	11.2	$498	867	$18.93	3.9	$97	$595	103
Missouri	Springfield	4,660	$5.98	11.7	$488	786	$18.93	3.8	$85	$573	99
Missouri	Sullivan, Gerald	4,796	$5.98	11.5	$493	712	$18.93	3.7	$75	$568	98
Missouri	Warrensburg	4,849	$5.98	11.4	$495	917	$18.93	4.0	$104	$599	104
Missouri	West Plains	4,561	$5.98	11.8	$484	697	$18.93	3.7	$73	$556	96
Montana	Billings	7,212	$5.32	7.8	$447	252	$13.31	3.0	$15	$462	80
Montana	Butte	9,613	$5.32	7.5	$575	20	$13.31	2.8	$1	$576	100
Montana	Great Falls	7,766	$5.32	7.5	$465	155	$13.31	2.8	$9	$474	82
Montana	Havre	8,660	$5.32	7.5	$518	174	$13.31	2.9	$10	$528	91

Table D-1. Home Heating and Cooling Costs by City, 1984.

Note: Yrly heating (cooling) costs = degree-days x energy price x efficiency of use x improved living area (1,500 ft sq)
* price in $/million BTU # Efficiency in BTUs/sq ft degree-day

State	City or Urban Area	HEATING: Degree-days/yr 65 deg	HEATING: Price primary energy*	HEATING: Efficiency of use #	HEATING: Yearly heating cost	COOLING: Degree-days/yr 70 deg	COOLING: Price Electricity*	COOLING: Efficiency of use #	COOLING: Yearly heating cost	TOTAL HEATING & COOLING COST: Yearly	TOTAL HEATING & COOLING COST: Index
Montana	Helena	8,176	$5.32	7.5	$489	105	$13.31	2.8	$6	$495	86
Montana	Kalispell	7,711	$5.32	7.5	$462	68	$13.31	2.7	$4	$466	80
Montana	Miles City	7,844	$5.32	7.5	$452	415	$13.31	3.2	$27	$478	83
Montana	Missoula	7,839	$5.32	7.5	$469	50	$13.31	2.7	$3	$472	82
Nebraska	Columbus	6,503	$5.40	8.9	$466	593	$18.58	3.5	$58	$524	91
Nebraska	Grand Island	6,462	$5.40	8.9	$466	561	$18.58	3.5	$54	$520	90
Nebraska	Kearney	6,567	$5.40	8.8	$466	543	$18.58	3.4	$52	$517	90
Nebraska	Lincoln	6,987	$5.40	9.7	$467	720	$18.58	3.7	$74	$542	94
Nebraska	Norfolk	7,005	$5.40	8.1	$459	492	$18.58	3.4	$46	$505	87
Nebraska	North Platte	6,909	$5.40	8.2	$461	389	$18.58	3.2	$35	$495	86
Nebraska	Omaha	6,592	$5.40	8.7	$465	494	$18.58	3.4	$46	$512	88
Nebraska	Scotts Bluff	6,702	$5.40	8.5	$464	344	$18.58	3.1	$30	$494	85
Nevada	Elko	7,248	$7.41	7.7	$821	165	$18.41	2.9	$13	$834	110
Nevada	Las Vegas	2,832	$7.41	14.9	$420	2,162	$18.41	5.9	$353	$773	154
Nevada	Reno	6,030	$7.41	9.6	$642	120	$18.41	2.8	$9	$651	113
New Hamp	Claremont	7,943	$8.05	7.5	$719	84	$28.96	2.7	$10	$729	126
New Hamp	Manchester	7,482	$8.05	7.5	$678	353	$28.96	3.1	$48	$726	126
New Hamp	Portsmouth	7,482	$8.05	7.5	$678	353	$28.96	3.1	$48	$726	126
New Jersey	Asbury Park	5,158	$7.51	10.9	$634	317	$32.27	3.1	$47	$681	119
New Jersey	Atlantic City	5,086	$7.51	11.0	$631	349	$32.27	3.1	$53	$684	118
New Jersey	Bridgeton	4,945	$7.51	11.2	$626	454	$32.27	3.3	$72	$698	121
New Jersey	Camden, Cherry Hill	4,947	$7.51	11.2	$626	526	$32.27	3.4	$87	$713	123
New Jersey	Flemington	5,783	$7.51	10.0	$648	300	$32.27	3.1	$44	$693	120
New Jersey	Hackensack	4,972	$7.51	11.2	$627	542	$32.27	3.4	$90	$717	124
New Jersey	Jersey City	5,285	$7.51	10.7	$638	379	$32.27	3.2	$58	$696	120
New Jersey	Morristown	5,171	$7.51	10.9	$634	424	$32.27	3.2	$67	$701	121
New Jersey	New Brunswick, East Brnwk	5,239	$7.51	10.8	$636	348	$32.27	3.1	$52	$689	119
New Jersey	Newark, Orange	4,972	$7.51	11.2	$627	542	$32.27	3.4	$90	$717	124
New Jersey	Paterson	4,972	$7.51	11.2	$627	542	$32.27	3.4	$90	$717	124
New Jersey	Phillipsburg	6,504	$7.51	8.8	$648	161	$32.27	2.8	$22	$671	116
New Jersey	Toms River	5,158	$7.51	10.9	$634	317	$32.27	3.1	$47	$681	118
New Jersey	Trenton	4,950	$7.51	11.2	$626	457	$32.27	3.3	$73	$699	121
New Jersey	Wildwood	4,541	$7.51	11.9	$606	439	$32.27	3.3	$70	$676	117
New Mexico	Albuquerque	4,414	$8.12	12.0	$488	671	$24.97	3.6	$91	$579	100
New Mexico	Clovis	4,078	$8.12	12.6	$470	618	$24.97	3.5	$82	$552	96
New Mexico	Farmington	5,377	$8.12	10.6	$522	445	$24.97	3.3	$55	$577	100
New Mexico	Gallup	6,161	$8.12	9.4	$530	119	$24.97	2.8	$12	$543	94

Table D-1. Home Heating and Cooling Costs by City, 1984.

Note: Yrly heating (cooling) costs = degree-days x energy price x efficiency of use x improved living area (1,500 ft sq)
* price in $/million BTU # Efficiency in BTUs/sq ft degree-day

State	City or Urban Area	HEATING Degree-days/yr 65 deg	HEATING Price primary energy*	HEATING Efficiency of use #	HEATING Yearly heating cost	COOLING Degree-days/yr 70 deg	COOLING Price Electricity*	COOLING Efficiency of use #	COOLING Yearly heating cost	TOTAL HEATING & COOLING COST Yearly	TOTAL HEATING & COOLING COST Index
New Mexico	Hobbs	2,881	$6.12	14.4	$381	1,074	$24.97	4.2	$171	$551	95
New Mexico	Las Cruces	3,356	$6.12	13.7	$421	787	$24.97	3.8	$112	$533	92
New Mexico	Roswell	3,126	$6.12	14.0	$402	1,120	$24.97	4.3	$181	$583	101
New Mexico	Santa Fe	6,063	$6.12	9.5	$530	70	$24.97	2.7	$7	$537	93
New York	Albany	6,927	$7.78	8.2	$663	173	$33.24	2.9	$25	$688	119
New York	Binghamton	7,344	$7.78	7.6	$648	85	$33.24	2.7	$12	$660	114
New York	Buffalo	6,798	$7.78	8.4	$666	170	$33.24	2.9	$24	$691	119
New York	Elmira	6,927	$7.78	8.2	$663	137	$33.24	2.8	$19	$682	118
New York	Glen Falls	7,547	$7.78	7.8	$661	114	$33.24	2.8	$16	$676	117
New York	Jamestown	6,639	$7.78	8.7	$670	140	$33.24	2.8	$20	$689	119
New York	Kingston	6,366	$7.78	9.1	$673	226	$33.24	2.9	$33	$706	122
New York	Nassau	6,927	$7.78	8.2	$663	173	$33.24	2.9	$25	$688	119
New York	New York City	4,868	$7.78	11.4	$645	545	$33.24	3.4	$93	$738	128
New York	Plattsburgh	8,231	$7.78	7.5	$720	93	$33.24	2.7	$13	$733	127
New York	Potsdam	8,097	$7.78	7.5	$709	95	$33.24	2.7	$13	$722	125
New York	Poughkeepsie	6,366	$7.78	9.1	$673	226	$33.24	2.9	$33	$706	122
New York	Rochester	6,713	$7.78	8.5	$668	205	$33.24	2.9	$30	$698	121
New York	Schenectady	6,927	$7.78	8.2	$663	173	$33.24	2.9	$25	$688	119
New York	Syracuse	6,787	$7.78	8.4	$667	192	$33.24	2.9	$28	$694	120
New York	Utica	7,368	$7.78	7.5	$647	150	$33.24	2.8	$21	$668	116
New York	Watertown	7,480	$7.78	7.5	$655	144	$33.24	2.8	$20	$675	117
New York	White Plains, Rye	4,868	$7.78	11.4	$645	545	$33.24	3.4	$93	$738	128
North Car	Asheville	4,139	$7.62	12.5	$590	375	$20.69	3.2	$37	$627	108
North Car	Charlotte	3,342	$7.62	13.7	$523	866	$20.69	3.9	$105	$628	109
North Car	Fayetteville	3,155	$7.62	14.0	$504	935	$20.69	4.0	$117	$621	107
North Car	Goldsboro	3,102	$7.62	14.1	$498	970	$20.69	4.1	$123	$621	107
North Car	Greensboro	3,874	$7.62	12.9	$570	660	$20.69	3.6	$74	$644	111
North Car	Lenoir	3,660	$7.62	13.2	$552	542	$20.69	3.4	$58	$610	106
North Car	New Bern	2,757	$7.62	14.6	$460	989	$20.69	4.1	$126	$586	101
North Car	Raleigh	3,531	$7.62	13.4	$541	720	$20.69	3.7	$83	$623	108
North Car	Rocky Mount	3,531	$7.62	13.4	$541	720	$20.69	3.7	$83	$623	108
North Car	Wilmington	2,469	$7.62	15.0	$424	1,082	$20.69	4.3	$143	$567	98
North Car	Winston-Salem	3,422	$7.62	13.8	$531	721	$20.69	3.7	$83	$613	106
North Dak	Bismark	9,075	$6.22	7.5	$835	209	$18.82	2.9	$17	$852	113
North Dak	Devils Lake	9,885	$6.22	7.5	$892	145	$18.82	2.8	$12	$703	122
North Dak	Fargo	9,343	$6.22	7.5	$854	199	$18.82	2.9	$16	$870	116
North Dak	Grand Forks	9,553	$6.22	7.5	$868	188	$18.82	2.9	$15	$884	118
North Dak	Jamestown	9,034	$6.22	7.5	$832	226	$18.82	2.9	$19	$851	113
North Dak	Minot	9,415	$6.22	7.5	$859	180	$18.82	2.9	$15	$873	117
North Dak	Williston	9,241	$6.22	7.5	$847	185	$18.82	2.9	$15	$862	114

Table D-1. Home Heating and Cooling Costs by City, 1984.

Note: Yrly heating (cooling) costs = degree-days x energy price
x efficiency of use x improved living area (1,500 ft sq)
* price in $/million BTU # Efficiency in BTUs/sq ft degree-day

State	City or Urban Area	HEATING: Degree-days/yr 65 deg	HEATING: Price primary energy*	HEATING: Efficiency of use #	HEATING: Yearly heating cost	COOLING: Degree-days/yr 70 deg	COOLING: Price Electricity*	COOLING: Efficiency of use #	COOLING: Yearly heating cost	TOTAL HEATING & COOLING COST Yearly	TOTAL HEATING & COOLING COST Index
Ohio	Akron	6,241	$6.09	9.3	$527	237	$23.30	3.0	$25	$552	96
Ohio	Athens	5,487	$6.09	10.4	$522	292	$23.30	3.0	$31	$553	96
Ohio	Canton	6,241	$6.09	9.3	$527	237	$23.30	3.0	$25	$552	96
Ohio	Cincinnati	4,950	$6.09	11.2	$508	584	$23.30	3.5	$71	$579	100
Ohio	Cleveland, North Olmsted	6,178	$6.09	9.3	$528	234	$23.30	3.0	$24	$552	95
Ohio	Columbus	5,447	$6.09	10.5	$521	465	$23.30	3.3	$54	$575	99
Ohio	Dayton, Brokvile, Grantwn	5,255	$6.09	10.8	$517	622	$23.30	3.6	$77	$594	103
Ohio	Decatur	4,950	$6.09	11.2	$508	584	$23.30	3.5	$71	$579	100
Ohio	Eaton	5,973	$6.09	9.7	$527	292	$23.30	3.0	$31	$558	97
Ohio	Elyria	6,020	$6.09	9.6	$527	282	$23.30	3.0	$30	$557	96
Ohio	Lewisburg	5,910	$6.09	9.8	$527	376	$23.30	3.2	$42	$569	98
Ohio	Lima	5,910	$6.09	9.8	$527	378	$23.30	3.2	$42	$569	98
Ohio	Mansfield	6,249	$6.09	9.2	$527	350	$23.30	3.0	$26	$553	96
Ohio	Niles, Cortland, Minrl Rg	5,923	$6.09	9.7	$527	239	$23.30	3.0	$25	$552	95
Ohio	Painesville	5,987	$6.09	9.6	$527	214	$23.30	2.9	$22	$549	95
Ohio	Polk	5,589	$6.09	8.7	$525	148	$23.30	2.8	$15	$540	93
Ohio	Portsmouth	4,702	$6.09	11.6	$499	559	$23.30	3.5	$68	$566	98
Ohio	Sandusky	6,016	$6.09	9.6	$527	356	$23.30	3.1	$39	$566	98
Ohio	Spring Valley, Xenia	5,589	$6.09	10.3	$523	328	$23.30	3.1	$36	$558	97
Ohio	Steubenville	5,587	$6.09	10.3	$523	307	$23.30	3.1	$33	$556	96
Ohio	Toledo	6,570	$6.09	8.7	$525	245	$23.30	3.0	$25	$550	95
Ohio	Youngstown	6,560	$6.09	8.8	$525	182	$23.30	2.8	$16	$541	94
Ohio	Zanesville	5,777	$6.09	10.0	$526	284	$23.30	3.0	$30	$556	96
Oklahoma	Ardmore	3,609	$4.80	14.8	$278	1,645	$19.55	5.1	$247	$525	91
Oklahoma	Bartlesville	3,842	$4.80	12.9	$357	1,168	$19.55	4.4	$150	$508	88
Oklahoma	Clinton	3,695	$4.80	13.1	$350	1,326	$19.55	4.6	$180	$530	92
Oklahoma	Enid	3,764	$4.80	13.0	$353	1,333	$19.55	4.6	$181	$535	93
Oklahoma	Hugo	2,716	$4.80	14.6	$286	1,394	$19.55	4.7	$193	$480	83
Oklahoma	Lawton	3,237	$4.80	13.8	$323	1,422	$19.55	4.8	$199	$522	90
Oklahoma	McAlester	3,361	$4.80	13.7	$331	1,320	$19.55	4.6	$179	$509	88
Oklahoma	Muskogee	3,409	$4.80	13.6	$333	1,299	$19.55	4.6	$175	$508	88
Oklahoma	Oklahoma City	3,735	$4.80	13.1	$352	1,190	$19.55	4.4	$154	$506	88
Oklahoma	Stillwater	3,793	$4.80	13.0	$355	1,203	$19.55	4.4	$157	$512	89
Oklahoma	Tulsa	3,731	$4.80	13.1	$352	1,315	$19.55	4.6	$178	$530	92
Oregon	Astoria	5,248	$7.23	10.6	$613	0	$13.51	2.6	$0	$613	106
Oregon	Bend	7,078	$7.23	8.0	$612	17	$13.51	2.6	$1	$613	106
Oregon	Eugene	4,799	$7.23	11.5	$596	69	$13.51	2.7	$4	$600	104
Oregon	Medford	4,798	$7.23	11.5	$596	283	$13.51	3.0	$17	$614	106
Oregon	Pendelton	5,263	$7.23	10.7	$613	355	$13.51	3.1	$23	$636	110
Oregon	Portland	4,691	$7.23	11.6	$591	103	$13.51	2.8	$6	$597	103
Oregon	Salem	4,974	$7.23	11.2	$604	58	$13.51	2.7	$3	$607	105
Oregon	The Dalles	5,567	$7.23	10.3	$621	66	$13.51	2.7	$4	$624	108

Table D-1. Home Heating and Cooling Costs by City, 1984.

Note: Yrly heating (cooling) costs = degree-days x energy price x efficiency of use x improved living area (1,500 ft sq)
* price in $/million BTU # Efficiency in BTUs/sq ft degree-day

State	City or Urban Area	HEATING: Degree-days/yr 65 deg	HEATING: Price primary energy*	HEATING: Efficiency of use #	HEATING: Yearly heating cost	COOLING: Degree-days/yr 70 deg	COOLING: Price Electricity*	COOLING: Efficiency of use #	COOLING: Yearly heating cost	TOTAL HEATING & COOLING COST: Yearly	TOTAL HEATING & COOLING COST: Index
Penn	Allentown	5,815	$6.77	9.9	$585	317	$24.71	3.1	$36	$621	107
Penn	Altoona	5,768	$6.77	10.0	$584	295	$24.71	3.1	$33	$618	107
Penn	Camp Hill	5,323	$6.77	10.7	$576	501	$24.71	3.4	$63	$639	110
Penn	Dayton, Sagmore	6,157	$6.77	9.4	$586	154	$24.71	2.8	$16	$603	104
Penn	DuBois	6,247	$6.77	9.2	$586	202	$24.71	2.9	$22	$608	105
Penn	Erie, Waterford	6,768	$6.77	8.4	$580	120	$24.71	2.8	$12	$593	103
Penn	Greensburg, Murrysville	5,950	$6.77	9.7	$588	251	$24.71	3.0	$28	$614	106
Penn	Harrisburg, Middletown	5,338	$6.77	10.6	$576	491	$24.71	3.4	$61	$637	110
Penn	Indiana	6,157	$6.77	9.4	$586	154	$24.71	2.8	$16	$603	104
Penn	Johnstown	5,768	$6.77	10.0	$584	295	$24.71	3.1	$33	$618	107
Penn	Lancaster, Bar., Adamstwn	5,203	$6.77	10.8	$573	394	$24.71	3.2	$47	$619	107
Penn	Levittown	4,950	$6.77	11.2	$564	457	$24.71	3.3	$56	$620	107
Penn	New Castle, Ellwood City	5,885	$6.77	9.8	$585	242	$24.71	3.0	$27	$612	106
Penn	Philadelphia	4,947	$6.77	11.2	$564	526	$24.71	3.4	$66	$631	109
Penn	Pittsburgh	5,950	$6.77	9.7	$588	251	$24.71	3.0	$28	$614	106
Penn	Pottstown	4,947	$6.77	11.2	$564	526	$24.71	3.4	$66	$631	109
Penn	Reading	5,410	$6.77	10.5	$578	336	$24.71	3.1	$39	$617	107
Penn	Scranton	6,330	$6.77	9.1	$586	212	$24.71	2.9	$23	$609	105
Penn	Somerset, Jnrstwn, Ursina	5,768	$6.77	10.0	$584	295	$24.71	3.1	$33	$618	107
Penn	Washington	5,950	$6.77	9.7	$586	251	$24.71	3.0	$28	$614	106
Penn	West Chester, Coatsvle	5,370	$6.77	10.6	$577	416	$24.71	3.2	$50	$627	108
Penn	Wilkes-Barre	6,330	$6.77	9.1	$586	212	$24.71	2.9	$23	$609	105
Penn	Williamsport	6,047	$6.77	9.5	$586	262	$24.71	3.0	$29	$615	106
Rhode Is	Providence	5,908	$7.71	9.8	$667	205	$29.19	2.9	$26	$693	120
South Car	Anderson	2,949	$7.43	14.3	$470	909	$20.25	4.0	$110	$580	100
South Car	Beaufort	1,919	$7.43	15.9	$339	1,277	$20.25	4.6	$177	$516	89
South Car	Charleston	1,868	$7.43	15.9	$332	1,367	$20.25	4.7	$195	$527	91
South Car	Columbia	2,629	$7.43	14.8	$433	1,217	$20.25	4.5	$165	$598	103
South Car	Florence	2,727	$7.43	14.6	$445	1,043	$20.25	4.2	$133	$577	100
South Car	Greenville	3,239	$7.43	13.8	$500	813	$20.25	3.8	$95	$595	103
South Car	Greenwood	3,189	$7.43	13.9	$495	932	$20.25	4.0	$114	$609	105
South Car	Myrtle Beach	2,226	$7.43	15.4	$382	1,197	$20.25	4.4	$161	$543	94
South Car	Orangeburg	2,580	$7.43	14.9	$427	1,154	$20.25	4.4	$153	$580	100
South Dak	Aberdeen	8,570	$6.56	7.5	$632	274	$19.99	3.0	$25	$657	114
South Dak	Chamberlain	7,395	$6.56	7.5	$545	474	$19.99	3.3	$47	$592	102
South Dak	Huron	8,103	$6.56	7.5	$598	378	$19.99	3.2	$36	$634	110
South Dak	Pierre	7,571	$6.56	7.5	$559	455	$19.99	3.3	$45	$604	104
South Dak	Rapid City	6,816	$6.56	8.4	$561	346	$19.99	3.1	$32	$594	103
South Dak	Sioux Falls	7,885	$6.56	7.5	$582	382	$19.99	3.2	$36	$618	107

Table D-1. Home Heating and Cooling Costs by City, 1984.

Note: Yrly heating (cooling) costs = degree-days x energy price
x efficiency of use x improved living area (1,500 ft sq)
* price in $/million BTU # Efficiency in BTUs/sq ft degree-day

		HEATING				COOLING					
State	City or Urban Area	Degree-days/yr 65 deg	Price primary energy*	Efficiency of use #	Yearly heating cost	Degree-days/yr 70 deg	Price Electricity*	Efficiency of use #	Yearly heating cost	TOTAL HEATING & COOLING COST Yearly	Index
South Dak	Watertown	8,622	$6.56	7.5	$651	224	$19.99	2.9	$20	$671	116
South Dak	Yankton	7,474	$6.56	7.5	$552	410	$19.99	3.2	$40	$591	102
Tennessee	Chattanooga	3,583	$5.65	13.3	$404	906	$14.83	4.0	$80	$485	84
Tennessee	Clarksville	4,014	$5.65	12.7	$431	887	$14.83	3.9	$76	$506	88
Tennessee	Columbia	3,761	$5.65	13.0	$416	841	$14.83	3.9	$73	$489	85
Tennessee	Cookeville	3,734	$5.65	13.1	$414	886	$14.83	4.0	$78	$492	85
Tennessee	Jackson	3,540	$5.65	13.4	$402	1,081	$14.83	4.3	$102	$504	87
Tennessee	Johnson City	3,920	$5.65	12.8	$425	544	$14.83	3.4	$42	$467	81
Tennessee	Kingsport	3,920	$5.65	12.8	$425	544	$14.83	3.4	$42	$467	81
Tennessee	Knoxville	3,658	$5.65	13.2	$409	784	$14.83	3.8	$68	$476	82
Tennessee	Memphis	3,207	$5.65	13.9	$378	1,289	$14.83	4.6	$131	$509	88
Tennessee	Nashville	3,756	$5.65	13.1	$416	977	$14.83	4.1	$89	$505	87
Tennessee	Union City	4,224	$5.65	12.3	$442	783	$14.83	3.8	$66	$508	88
Texas	Abilene	2,621	$5.92	14.8	$344	1,600	$22.95	5.0	$278	$622	108
Texas	Amarillo	4,231	$5.92	12.3	$463	807	$22.95	3.8	$107	$570	99
Texas	Austin	1,760	$5.92	16.1	$252	1,906	$22.95	5.5	$362	$614	106
Texas	Beaumont	1,477	$5.92	16.8	$217	1,812	$22.95	5.4	$335	$552	96
Texas	Bridgeport	2,835	$5.92	14.5	$364	1,667	$22.95	5.2	$298	$660	114
Texas	Brownsville, Harlingen	609	$5.92	16.8	$89	2,442	$22.95	6.0	$504	$594	103
Texas	Cleburne	2,238	$5.92	15.4	$306	1,728	$22.95	5.2	$312	$618	107
Texas	Corpus Christi	945	$5.92	16.8	$138	2,350	$22.95	6.0	$485	$624	108
Texas	Dallas	2,407	$5.92	15.1	$323	1,888	$22.95	5.5	$357	$680	118
Texas	Dawson	2,407	$5.92	15.1	$323	1,888	$22.95	5.5	$357	$680	118
Texas	Del Rio	1,510	$5.92	16.5	$221	2,209	$22.95	6.0	$455	$676	117
Texas	El Paso	2,664	$5.92	14.7	$348	1,280	$22.95	4.6	$201	$549	95
Texas	Gainesville	3,041	$5.92	14.1	$382	1,520	$22.95	4.9	$258	$640	111
Texas	Granbury	2,238	$5.92	15.4	$306	1,728	$22.95	5.2	$312	$618	107
Texas	Hillsboro	2,395	$5.92	15.1	$322	1,732	$22.95	5.2	$313	$635	110
Texas	Honey Grove	2,934	$5.92	14.3	$373	1,512	$22.95	4.9	$256	$629	109
Texas	Houston	1,549	$5.92	16.4	$226	1,736	$22.95	5.3	$314	$540	93
Texas	Lubbock	3,516	$5.92	13.4	$419	979	$22.95	4.1	$138	$557	96
Texas	Nacogdoches	1,930	$5.92	15.8	$272	1,679	$22.95	5.2	$299	$570	99
Texas	Odessa	2,658	$5.92	14.7	$348	2,126	$22.95	5.9	$428	$776	134
Texas	Pampa	4,231	$5.92	12.3	$463	807	$22.95	3.8	$107	$570	99
Texas	San Angelo	2,313	$5.92	15.3	$313	1,684	$22.95	5.2	$300	$614	106
Texas	San Antonio	1,606	$5.92	16.3	$233	1,955	$22.95	5.6	$376	$609	105
Texas	Sherman	2,934	$5.92	14.3	$373	1,512	$22.95	4.9	$256	$629	109
Texas	Texarkana	2,501	$5.92	15.0	$333	1,444	$22.95	4.8	$239	$572	99
Texas	Tyler	2,542	$5.92	14.9	$337	1,482	$22.95	4.9	$248	$585	101
Texas	Waco	2,126	$5.92	15.5	$294	1,929	$22.95	5.6	$369	$662	115
Texas	White Settlement	2,900	$5.92	14.4	$370	1,532	$22.95	4.9	$261	$631	109
Texas	Whitney	2,433	$5.92	15.1	$326	1,654	$22.95	5.1	$292	$618	107
Texas	Wichita Falls	3,011	$5.92	14.2	$379	1,686	$22.95	5.2	$301	$680	118

Table D-1. Home Heating and Cooling Costs by City, 1984.

Note: Yrly heating (cooling) costs = degree-days x energy price x efficiency of use x improved living area (1,500 ft sq)
* price in $/million BTU # Efficiency in BTUs/sq ft degree-day

State	City or Urban Area	HEATING: Degree-days/yr 65 deg	HEATING: Price primary energy*	HEATING: Efficiency of use #	HEATING: Yearly heating cost	COOLING: Degree-days/yr 70 deg	COOLING: Price Electricity*	COOLING: Efficiency of use #	COOLING: Yearly heating cost	TOTAL HEATING & COOLING COST: Yearly	TOTAL HEATING & COOLING COST: Index
Utah	Cedar City	5,991	$5.41	9.6	$468	278	$22.95	3.0	$29	$497	88
Utah	Ogden	5,973	$5.41	9.7	$466	409	$22.95	3.2	$45	$514	89
Utah	Provo	5,737	$5.41	10.0	$467	425	$22.95	3.3	$48	$514	89
Utah	Salt Lake City	5,802	$5.41	9.9	$467	525	$22.95	3.4	$62	$529	91
Vermont	Burlington	7,953	$8.35	7.5	$747	131	$20.60	2.8	$11	$758	131
Vermont	Montpelier	8,527	$8.35	7.8	$801	55	$20.60	2.7	$5	$806	139
Vermont	Rutland	7,155	$8.35	7.9	$704	108	$20.60	2.8	$9	$713	123
Vermont	Saint Johnsbury	7,881	$8.35	7.8	$740	98	$20.60	2.7	$8	$749	130
Virginia	Charlottesville	4,189	$7.40	12.4	$576	613	$20.57	3.5	$67	$643	111
Virginia	Lynchburg	4,323	$7.40	12.2	$585	505	$20.57	3.4	$53	$637	110
Virginia	Norfolk	3,446	$7.40	13.5	$517	793	$20.57	3.8	$93	$611	106
Virginia	Richmond	3,960	$7.40	12.7	$560	706	$20.57	3.7	$80	$640	111
Virginia	Roanoke	4,315	$7.40	12.2	$584	524	$20.57	3.4	$55	$639	111
Virginia	Suffolk	3,608	$7.40	13.3	$532	722	$20.57	3.7	$83	$614	106
Virginia	Warrenton	4,813	$7.40	11.4	$611	454	$20.57	3.3	$46	$657	114
Virginia	Winchester	4,823	$7.40	11.4	$611	457	$20.57	3.3	$47	$658	114
Washington	Aberdeen	5,320	$6.91	10.7	$588	0	$11.64	2.6	$0	$588	102
Washington	Bellingham	5,638	$6.91	10.2	$595	0	$11.64	2.6	$0	$595	103
Washington	Bremerton	5,193	$6.91	10.9	$584	18	$11.64	2.6	$1	$585	101
Washington	Everett, Index	5,352	$6.91	10.8	$589	0	$11.64	2.6	$0	$589	102
Washington	Pasco	4,700	$6.91	11.8	$566	485	$11.64	3.3	$28	$594	103
Washington	Richland	4,700	$6.91	11.8	$566	485	$11.64	3.3	$28	$594	103
Washington	Seattle, Baring, Renton	5,121	$6.91	11.0	$582	39	$11.64	2.7	$2	$584	101
Washington	Spokane	6,882	$6.91	8.3	$590	167	$11.64	2.9	$8	$598	104
Washington	Tacoma	4,796	$6.91	11.5	$570	21	$11.64	2.6	$1	$571	99
Washington	Vancouver	5,026	$6.91	11.1	$579	78	$11.64	2.7	$4	$582	101
Washington	Wenatchee	5,696	$6.91	10.1	$595	355	$11.64	3.1	$19	$615	106
Washington	Yakima	6,031	$6.91	9.6	$598	200	$11.64	2.9	$10	$609	105
West Vir	Beckley	5,577	$5.91	10.3	$508	147	$17.35	2.8	$11	$518	90
West Vir	Bluefield	5,217	$5.91	10.8	$500	161	$17.35	2.8	$12	$512	89
West Vir	Charleston	4,697	$5.91	11.6	$484	470	$17.35	3.3	$41	$524	91
West Vir	Clarksburg	5,459	$5.91	10.4	$506	324	$17.35	3.1	$26	$532	92
West Vir	Fairmont	5,354	$5.91	10.6	$504	310	$17.35	3.1	$25	$528	91
West Vir	Huntington	4,676	$5.91	11.6	$483	567	$17.35	3.5	$51	$534	92
West Vir	Parkersburg	4,957	$5.91	11.2	$493	481	$17.35	3.3	$42	$535	93

Table D-1. Home Heating and Cooling Costs by City, 1984.

Note: Yrly heating (cooling) costs = degree-days x energy price x efficiency of use x improved living area (1,500 ft sq)
* price in $/million BTU # Efficiency in BTUs/sq ft degree-day

		HEATING				COOLING					
State	City or Urban Area	Degree-days/yr 65 deg	Price primary energy*	Efficiency of use #	Yearly heating cost	Degree-days/yr 70 deg	Price Electricity*	Efficiency of use #	Yearly heating cost	TOTAL HEATING & COOLING COST Yearly	Index
Wisconsin	Eau Claire	8,463	$6.89	7.5	$656	184	$20.55	2.9	$16	$672	116
Wisconsin	Fond Du Lac	7,568	$6.89	7.5	$587	199	$20.55	2.9	$18	$604	105
Wisconsin	Green Bay	8,143	$6.89	7.5	$631	131	$20.55	2.8	$11	$642	111
Wisconsin	Janesville	6,762	$6.89	8.5	$591	349	$20.55	3.1	$34	$625	108
Wisconsin	La Crosse	7,540	$6.89	7.5	$584	309	$20.55	3.1	$29	$614	106
Wisconsin	Madison	7,642	$6.89	7.5	$592	169	$20.55	2.9	$15	$607	105
Wisconsin	Marinette	7,484	$6.89	7.5	$578	199	$20.55	2.9	$18	$596	103
Wisconsin	Milwaukee	7,328	$6.89	7.6	$575	173	$20.55	2.9	$15	$590	102
Wisconsin	Rhinelander	8,945	$6.89	7.5	$693	99	$20.55	2.8	$8	$702	121
Wisconsin	Rice Lake	8,778	$6.89	7.5	$680	127	$20.55	2.8	$11	$691	120
Wisconsin	Sheboygan	7,232	$6.89	7.7	$578	155	$20.55	2.8	$14	$592	102
Wisconsin	Wausau	8,565	$6.89	7.5	$664	127	$20.55	2.8	$11	$675	117
Wyoming	Casper	8,907	$5.69	8.2	$485	225	$17.17	2.9	$17	$502	87
Wyoming	Cheyenne	7,310	$5.69	7.6	$476	97	$17.17	2.7	$7	$482	83
Wyoming	Gillette	7,754	$5.69	7.5	$496	225	$17.17	2.9	$17	$513	89
Wyoming	Rock Spring	7,876	$5.69	7.5	$504	73	$17.17	2.7	$5	$509	88
Wyoming	Sheridan	7,841	$5.69	7.5	$502	187	$17.17	2.9	$14	$516	89
Wyoming	Thermopolis	7,258	$5.69	7.7	$477	251	$17.17	3.0	$19	$496	86
ALL CITY AVERAGE (^ = pop wtd)		4,944	$6.44	11.4	$478	683	$21.86	3.6	$99	$578^	100^